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Using the Survey of Inmates of State and Federal Correctional Facilities to Compare Female and Male Inmate Characteristics.

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ABSTRACT

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The purpose of this study was to examine the differences between female and male prison inmates using the Survey of Inmates of State and Federal Correctional Facilities, 1997. Variables examined included current offense, criminal history, drug use history, victimization history, program participation in the institution, disciplinary infractions in the institution, family history, and interaction with family while in prison. Results indicate that male inmates have worse criminal histories and longer sentences than female inmates. Female inmates have more extensive drug use histories, greater victimization histories, more program participation in the institution, and more criminality in their families of origin than do males. Moreover, males had more numerous disciplinary infractions in the institution and more serious infractions. Females had greater interaction with family while in prison than did males. Implications for future research and correctional practice are discussed.

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CHAPTER 1

INTRODUCTION

Numerous studies have examined male and female offenders independently, but this is the first study to compare the characteristics of male and female inmates simultaneously using the Survey of Inmates in Federal and State Correctional Facilities, 1997. The survey was compiled by the U. S. Department of Justice from two separate surveys of interviews from the U. S. Bureau of Census. The present comparison analyzed the responses from the survey of inmates in order to evaluate similarities and differences between male and female inmates on numerous characteristics compiled in the survey. A survey is conducted on the inmates in State and Federal Correctional Facilities every five years and is available for public access via the internet.

Statement of the Problem

The number of female inmates in state and federal facilities are rising compared to the number of male inmates. Females accounted for more than 3.2 million arrests in 1998 and over " 950,000 were under the care, custody or control of correctional agencies" (U. S. Department of Justice, 1999, p. 1). The U. S. Bureau of Statistics (2003) reported "between 1995 and midyear 2002, the incarcerated population grew an average of 3.8% annually" (p. 2). Females accounted for 5.4% of this growth and males 3.6% (U. S. Bureau of Statistics, 2003). Regardless of the statistics, men served longer sentences than females (Chesney-Lind, 1999; U. S. Bureau of Justice Statistics, 1999, 2000, n.d.). Females have been and still are treated differently in the criminal justice system from males. The U. S. Department of Justice released statistics in 2000 on women offenders stating that 14% of violent offenders are women and that equals " an annual average of about 2.1 million violent female offenders" (p. 1). The rate of females in criminal courts has risen more than twice that of males. Despite the available evidence, there are numerous studies performed on male offenders, but the amount of research on female offenders is minimal. As of

this date, no study has compared the male and female inmates using the survey of Inmates. This study examined the similarities and differences between incarcerated male and female inmates using the Survey of Inmates of State and Federal Correctional Facilities (Survey) collected by the Bureau of Justice Statistics in 1997.

Significance of the Study

Variables examined in this study, included current offense, current sentence, criminal history, prior victimization, prior substance abuse, mental disorders, inmate program participation, prison behavior, and family communication. As of this date, no such study has been conducted using the Survey.

In order to decrease crime in the United States, the origins of criminal behavior must be understood. Criminal behavior is affected by many different characteristics of male and female offenders, and this study addressed numerous elements of criminally offending. However, the scope of this study could only address a fraction of characteristics that can be identified to promote criminality. The results of this study will address implications for future research and correctional practices.

Organization of the Study

Chapter 2 begins examining the differences and similarities between male and female offenders by reviewing the available empirical research. This chapter presents the numerous studies on male inmates and offenders and stresses the lack of research on female inmates.

The subsequent chapter explains the methods and processes used to analyze the many variable in the Survey of Inmates. Chapter 3 describes the survey and how the prisons and prisoners were selected to be used in the data set. The research questions and hypotheses are also included in the chapter followed by the variables used for each analysis.

The results and analyses of this study are presented in Chapter 4. The chapter

describes the type of measurement used to for variables included in analyses. This chapter also describes the numerous percentages and statistics used for analyzing the data. The results are presented in Tables for easy access and include a brief summary of each result.

The last chapter discusses the analysis and the implications of the results. It also concludes with suggestions for future analysis. The results of this study will aid policymakers and correctional officials in assessing the differential needs of male and female inmates.

CHAPTER 2
REVIEW OF LITERATURE

This study examines differences between male and female inmates on criminal history, prior victimization, prior substance abuse, mental disorders, inmate program participation, prison behavior, and prior and current family relationships. Prior research finds different motivations for criminal behavior of females and males. Female criminal behavior and adult victimization have antecedents in past victimization and current substance abuse, whereas male criminal behavior stems from opportunity, poor socialization, and the traditional role of aggressor. Gottfredson and Hirschi (1990) suggest " self-control may play a large role in accounting for gender differences in crime" (p. 147) implying that females are better socialized by their parents than are males. Sellers (1999) reported all "crime is a result of low self-control" (p. 379) regardless of gender. Although women have always offended, only recently have theorists and researchers studied them.

Gender Differences in Offense History

Numerous researchers have suggested that women are always and everywhere less likely to commit criminal acts than are men (Browne & Williams, 1993; Burton, Cullen, Evans, Alarid, & Dunaway, 1998; Gottfredson & Hirschi, 1990; Heimer & De Coster, 1999; Ogle, Maier-Katkin, & Bernard, 1995; Steffensmeier & Allan 1996; Verona & Carbonell, 2000). Burton et al. suggested one reason for the lower involvement of females in criminal behavior originates with self-control due to reduced opportunity that accompanies greater supervision by parental figures and society. Another reason suggested by Steffensmeier and Allan is that females are more emotionally attached to their families than are males, with the result that adult females are less likely to offend because of the risk of alienating their family.

Regardless of the lesser participation by females in crime generally, prior studies show that the rate of female offending rose more quickly than the rate of male offending since 1990; the

increase in the rate may explain the increase in public awareness of and interest in the female criminal (Burton et al., 1998; Chilton & Datesman, 1987). Some researchers explain the increase in crime rates of females by focusing on the changing sex roles within society that lead women to commit more crimes that were once thought of as too masculine for females (Chesney-Lind, 1989; Steffensmeier, 1980). Increased opportunity, new freedoms, as well as the strains and stresses experienced by females are believed to have caused females to react in ways once thought of solely characteristic of males (Adler, 1975).

Another explanation for the increase in female criminality is suggested by Steffensmeier et al. (1989) as attributable to the increase in development and growth in the world. As females' social and work roles are changing, they have an increased opportunity to commit more male oriented crimes (Chilton & Datesman; 1987; Small, 2000). Some link the increase in the number of female criminals as related to the women s movement (Adler, 1975; Chesney-Lind, 1998). Females have not always had the same opportunity as males to commit criminal acts due to differential parental supervision that reduces young females opportunity more so than males (Gottfredson & Hirschi, 1990).

Whatever the reason, the increase in the rate of female offending consequently has led to the increase in female incarceration between 1980 and 1997, with the number of females in prison increasing six-fold (Chesney-Lind, 1998; Keaveny & Zauszniewski, 1999; U. S. Department of Justice, 1991, 1997, 2003). Females in prison are incarcerated for the same types of offenses as males including murder, robbery, assault, fraud, and drug related offenses (U. S. Bureau of Census, 2000). Though women are increasingly being incarcerated, substantially more males than females continue to be incarcerated in United States prisons (U. S. Bureau of Census).

Gender Difference in the Types of Crimes

Gottfredson and Hirschi (1990) contend that self-control is the primary individual level cause of crime. Others suggest the "effect of self-control is contingent on criminal opportunity" (e.g. Longshore, 1998, p. 108) and that males and females may have the same level of self-control to refrain from criminal behavior when all other forces are equal such as opportunity, peer pressure, family interaction and influence, substance abuse, and work environment (Akers, 1997; Brannigan, 1997; Burton et al., 1998; Stylianou, 2000). Self-control is a stable characteristic identified early in life and does not depend on other variables (Hirschi & Gottfredson, 2000). In contrast to Hirschi and Gottfredson's view, females are believed to possess fewer opportunities to commit crimes than males because they do not routinely work in jobs held by men that can provide opportunities to commit crimes such as larceny, theft, and other similar crimes (Steffensmeier & Allan, 1996). Alternatively, Loucks and Zamble (1999) suggest that female offending has different causes than male offending, but they cannot explain the wide variety of crimes committed by females.

Hirschi and Gottfredson (2000) suggest that women are everywhere less likely to commit crimes than are men. Numerous studies attempt to tease out empirically different offending rates of males and females with varying results (Brannigan, 1997; Burton et al., 1998; Gibbs, Giever, & Martin, 1998; Gottfredson & Hirschi, 1990; Longshore, 1997, Longshore & Turner, 1998; Schreck, 1999; Sellers, 1999). Steffensmeier and Allan (1996) found that men and women did not differ in the percentage of offense types that lead to their incarceration. However, Chilton and Datesman (1987) found that men have a much higher rate of larceny than women. In contrast, Loucks and Zamble (1999) reported an increase in the number of white-collar crimes like fraud and embezzlement committed by women (U. S. Department of Justice, 1999). Moreover, Wells (1990) reported that females commit 40% of all white-collar crimes but only 2% of all violent offenses. Traditionally, women have committed more property crimes than violent crimes, and most of these property crimes were simple thefts against their employers (Dean, 2001; U. S.

Department of Justice, 1993, 1997, 1999, 2003). Whereas men committed highway robbery, women stole from the houses in which they worked (Dean). As the number of women in the workplace increases, women's opportunity for crime increases, resulting in an increase in the number of white collar crimes committed by women (Cote, 2002).

Additional inconsistencies surface in other studies. Steffensmeier and Allan (1996) found a large difference of the number of violent crimes between males and females. Men are almost 10 times as likely as women to commit a violent crime (U. S. Department of Justice, 2003). In addition, the results of reported statistics suggest that males and females differ the least in the commission of property crimes with males committing a slightly higher rate of property offenses than females (Steffensmeier & Allan, 1996; U. S. Department of Justice, 2003). In contrast, other findings indicate that women are almost as likely as men to commit non-violent crimes and drug offenses (Steffensmeier & Allan; U. S. Department of Justice, 2003). Furthermore, men are more likely than females to offend in groups, and of those females who do offend with others, they usually do so as a male accomplice (Steffensmeier & Allan). For example, men often coerce women to assist in robberies, drug activities, and kidnaping.

Men and women also differ in the reasons and circumstances behind violence and homicide. Browne and Williams (1993) studied homicide rates in females compared to males, reporting that most female-perpetrated violence involved other family members and children. In addition, Heimer and De Coster (1999) concluded from their study that no longer is violence strictly a male phenomenon. The majority of homicides by females that involved the killing of an intimate (Browne & Williams; Keeney & Heide; Verona & Carbonell, 2000) were unplanned and generally occurred in the home (Ogle et al., 1995). Although, female crimes are growing closer in seriousness to those of males, most violent slayings by females (95%) are not premeditated but are crimes of passion (Heide, 2001; Hindeland, 1981; Hochstetler, Copes, & DeLisi, (2002); Kemppainen et al., 2002; Keeney & Heide, 1994; Mawby, 1980; Ogle et al.; Verona & Carbonell).

Other Factors Affecting Differences in Offending

The conclusions of some prior research suggest that there are other factors present in adolescence that lead to the differences in offending between the genders. Rosenbaum (1989) found that delinquency in girls resulted from the presence of violence in their homes. Another study reported that future criminal behavior of men and women were affected equally by the "[emotional] bonds, associations, learning [and] parental controls" (Steffensmeier & Allan, 1996, p. 466) in the home. For example, males and females with parents who criminally offend are at a higher risk than those whose parents do not, to commit crimes in adulthood (U. S. Department of Justice, 1999).

A child's self-control can be permanently engraved from early relationships within the first 8 years and significantly predicts criminal and analogous behavior in their late teens (Brannigan, 1997; Gibbs et al., 1998; Stylaniou, 2002). Gottfredson and Hirschi (1990) suggest that the closer supervision of girls in adolescence results in less criminal behavior of girls and more earlier misconduct by boys. Gibbs et al. studied and discussed how parental discipline toward young children can affect the child's level of self-control. Moreover, delinquent girls are more likely to be convicted of status offenses than boys, and girls receive harsher punishments as adolescents than do boys (Gottfredson & Hirschi). Generally, the lack of positive relationships with peers and family as well as the lack of parental control for both males and females increases their risk of adult criminality (Akers, 1997; Brannigan, 1997; Gottfredson & Hirschi).

Some studies show that female and males personify the same predictors while others offer contradictory results. For instance, Loucks and Zamble (1999) found physical abuse as a predictor of female criminality but not male criminality. However, Loucks and Zamble also found childhood sexual abuse can be used to predict violent offending in both males and females. A few years later, Harm and Phillips (2001) reported on the absence of studies of women and recidivism. However, they found that three factors of recidivism for females are also significant for predicting offending in males. The three include " lack of high school education, prior adult conviction, and

serving time for robbery" (Harm & Phillips, p. 5). Moreover, Harm and Phillips found substance abuse to be a major factor related to a female s return to prison. The children and family were found to greatly strengthen a female s bond to society and increase her desire to not recidivate (Harm & Phillips).

Sentencing

The differences between males and females within the criminal justice system extends to how they are treated in the sentencing phase. Incarceration still remains more unlikely for women than for men even with the rise in incarceration rates for women (Zatz, 2000). In addition, Daly (1989) reported that men generally receive harsher sentences than women for the same type of offense. Kruttischnitt and Green (1987) found evidence that females in the 1970s received preferential treatment, and the percentage of males and females sentenced to prison were statistically significant in the difference. They also found over a period of 16 years prior to the 1980s that "women are significantly more likely to obtain pre-trial freedom than men" (p. 545). Chesney-Lind (1998) reported that the increase in female prisoners is not necessarily due to an increase in the seriousness of female criminality but due to changes with sentencing reform. For instance, from 1971 to 1991, the number of females sentenced to incarceration for drug offenses almost tripled (Chesney-Lind). However, females sentenced to probation on federal felony convictions dropped from 66% to 28 % (Chesney-Lind).

Public sentiment for women also has affected sentencing by judges who consistently sentence women more leniently than men. Women who receive consideration by the courts and reduced sentencing are usually those women with children and a family (Zatz, 2000). The knowledge that sentencing a mother sentences the children as well originates with the idea that women occupy the traditional role of mother and care-giver (Chesney-Lind, 1998; Craddock, 1996; Daly, 1987,1989; Daly & Chesney-Lind, 1988; Kruttschnett & Green, 1984; Murphy & Brown, 2000; Nagel & Johnson, 1994; Ogle et al., 1995; Steffensmeier & Allan, 1996). Daly

(1989) reported that judges were reluctant to sentence women with children to prison because the rest of society is faced with the burden of raising their children. In addition, judges are less likely to sentence an offender with family obligations regardless of their gender. Research also suggests that judges are also less likely to sentence the main care-giver because of the importance of their family responsibilities (Daly, 1989). Daly (1989) also stated that leniency is granted more frequently to women than men because they are usually the main emotional care-givers to their children.

Daly and Bordt (1995) conducted an extensive study on whether or not court procedures favored women in the sentencing phase. They found that the most favorable conditions for women happened in felony courts, urban courts, and cases involving felony offenses. Out of the 50 datasets that Daly and Bordt analyzed, at least half had outcomes that favored women. Moreover Nagel and Johnson (1994) found that even after sentencing guidelines[1] and determinate sentencing went into affect, women offenders were still being favored especially, for drug, larceny and embezzlement offenses.

Sentencing for Prior Convictions

Prior research also indicates that men and women have different numbers of convictions prior to incarceration. Verona and Carbonell (2000) gathered data from prisoners over 17 years of age who were non-violent offenders, offenders of one violent offense, and repeat offenders of "murder/manslaughter, sexual assault or battery (including sexual abuse), robbery, violent personal offenses, resisting arrest with assault, and burglary with assault" (p. 187). Results indicate that violent and non-violent male offenders have more prior convictions than any

[1]Sentencing guidelines were devised to eliminate disparate sentences for similarly situated defendants. Treating similarly situated defendants the same should minimize sentencing disparities for males and females. An emphasis on sameness minimizes differences between men and women and advocates equal treatment based on gender-neutral implementation of the law (Zatz, 2000).

of the violent female offenders and more than females convicted on multiple offenses (Maden, Swinton, & Gunn, 1994; Verona & Carbonell). Men are also more likely to be incarcerated on first-time offenses regardless of the type of offense committed than are women with long criminal histories.

Daly (1989) found that the offender's prior record is the most heavily weighted factor for both males and females. Furthermore, Daly (1989) found evidence that males and females alike are more likely to receive probation instead of prison time on first offenses. Despite the evidence, Daly (1989) located a number of judges who admitted that if there is another alternative available, they will not send a woman to prison.

Substance Abuse

In addition to other differences between males and females, substance abuse is also a predictor of the differences in offending. The United States in now the country with the highest incarceration rate of all Western nations due, in part, to the increased number of drug offenses (Hien & Hien, 1998; U. S. Department of Justice, 1997, 1998, 2001). Over half of all inmates incarcerated in the United States have used or were under the influence of either drugs or alcohol at the time of their offense, and government reports indicate that more than 80% of all inmates are addicted to some form of drug (U. S. Department of Justice, 1997, 2000). Even with these high statistics, drug offenses appear to be on the increase for both males and females, directly affecting the prison population (U. S. Department of Justice, 1997, 1998, 2000, 2003). Moreover, research indicates that different drugs affect the risk for violent offending. For example, crack/cocaine and cocaine increase the risk of violent behavior compared to marijuana and other drugs (Hien & Hien, 1998).

Prison sentences for drug related crimes continue to increase but the numbers do not tell the real truth behind the substance abuse problems among offenders (Hien & Hien, 1998; McClellan, Farabee, & Crouch, 1997; Steffensmeier & Allan, 1996). Many times the offense that

leads to incarceration itself does not show the actual substance abuse problem. For instance males and females commit property crimes to get money for drugs or commit violent crimes over drugs. Moreover, thousands of individuals stole in order to support their drug habits and are incarcerated for robbery and burglary (U. S. Department of Justice, 2003).

Although the drug/crime connection exists, it is difficult to locate any research that has studied the specifics relating to which non-drug crimes were actually crimes about or for drugs. Mateyoke-Scrivner, Webster, Hiller, Staton, and Leukefeld (2003) conducted research in Kentucky and found a higher rate of drug use with men who had a longer criminal history than men with a shorter criminal history. In contrast, data on females who commit violent crimes while under the influence of drugs are not popular research topics, and empirical evidence is difficult to locate demonstrating the correlation of the two (Hien & Hien, 1998).

The major proportion of research conducted on drug abuse and criminal behavior looks at the current trend of substance abuse for males and females. Results indicate similar percentages for males and females who abuse drugs. Moreover drug offenses such as drug trafficking and drug possession are the leading offenses that have caused an increase in both the male and female prison populations (McClellan et al., 1997; U. S. Department of Justice, 2003). However, there is quite a difference between the types of drugs abused by males and females. Marijuana is reported as the predominant drug of choice for males followed closely by crack cocaine and cocaine. For females, crack far outweighs any other drugs, with cocaine and heroin a far second and third (McClellan et al.).

Despite the evidence on what drugs males and females use and the increase in drug offenses, females and males participate in drug use for different reasons. Women are more likely than men to participate in drug use prior to any criminal behavior, but criminal behavior for both genders increases as their drug use increases (McClellan et al., 1997). In addition, McClellan et al. conducted a study on the relationship of drug use across the genders and found that females were more likely than males to began abusing drugs prior to any involvement in criminal

behavior. In addition, Goodwin (1991) found that females begin using drugs earlier in life than males, but men are more likely than females to abuse drugs and alcohol.

Substance Abuse and Types of Offenses

McClellan et al. (1997) found that substance abuse "is less predictive of violent crimes &than property crimes", (p. 22) and substance abuse is a better predictor for women than for men. Females convicted of drug offenses and prostitution have a high incidence of substance abuse. Moreover, girls who were forced out of their homes because of a physical or sexual abuse have an increased risk for prostitution because of their substance abuse (Steffensmeier & Allan, 1996). Furthermore Hiday (1995) concurs with Martin and Bryant (2001) that alcohol and substance abuse are prevalent factors for all types of offenses for both males and females, especially violent crimes.

Females and Substance Abuse

Of the few studies available that focus on females, women have more problems with substance abuse, especially the harder drugs, than do men (McClellan et al., 1997). Furthermore, Hien and Hien (1998) confirmed the existing relationship between substance abuse and female offending and reported that half of all parents who abused their children had problems with substance abuse.

Substance abuse is often used as a form of self-medication by many females. Women who are victims of maltreatment may use illicit drugs in order to relieve the depression resulting from the abuse (McClellan et al., 1997). Moreover, McClellan et al. "found that for the women in their study, crack relieved certain forms of distress, and they concluded crack to be the major problematic drug for women" (p. 465).

Although some females need motivation to commit violence, others can naturally be just as violent and immoral as men (Small, 2000; Yeoman, 1999). Nevertheless, males dependent

on illegal drugs will coerce females to assist them with their drug habits and crimes, causing females to be more vulnerable with fewer inhibitions (Steffensmeier & Allan, 1996). Moreover, a female is more motivated to criminally offend depending on the types of drugs she abuses. Research indicates that certain drugs affect the risk of violent offending in similar ways; crack/cocaine and cocaine both increase the risk for violent behavior (Hien & Hien). Furthermore, McClellan et al. (1997) conducted a study on the relationship of drugs and gender, finding that females began abusing drugs before they became involved in criminal behavior. In contrast, McClellan et al. found that males participated in criminality prior to their drug use.

Alcohol Abuse

Alcohol has been found to affect criminal offending for both genders. Goodwin (1991) stated, " Violence among all women and white men was caused by the drug [alcohol] or withdrawal," (p. 12) and he further stated that the most likely drug associated with violence is alcohol. Alcohol was reported a factor in intimate violence by 66% of victims, and 25% of stranger victimizations involved the presence of alcohol (U.S. Department of Justice, 2001).

McClelland and Teplin (2001) and Martin and Bryant (2001) agree that alcohol is the most prevalent factor accompanying violent crime. Martin and Bryant also conclude that men are more likely than women to be intoxicated prior to and during a criminal offense. Women who consume alcohol are more likely than men to be involved in an assault as either the victim or perpetrator (Martin & Bryant, 2001; U.S. Department of Justice, 2003).

Summary of Substance Abuse and Gender

Women are typically viewed as feminine and weaker than the male and less likely to use drugs. Many consider illegal drug use unfeminine, but women repeatedly reject this stereotype as well as others (Malloch, 1999). Because violence and aggression are socially viewed as unfeminine, women are not as apt as men to behave in an aggressive way except from

provocation (Martin & Bryant, 2001, p. 577). Consequently, research suggests that substance abuse decreases resistance to criminal behavior, and routinely females need more motivation than men to criminally offend. Combining illicit drugs with alcohol intoxication increases a female's risk for violent offending (Martin & Bryant, 2001). Violence and substance use/abuse can be interchangeable. Hien and Hien (1998) stated, "Violence can be a risk factor for substance abuse; similarly, substance abuse can be a risk factor for violence" (p. 426). With this in mind, this discussion turns to another correlate of male and female offending, victimization.

Victimization

Research indicates that men are more likely to be the victims of crime as well as the offenders (Gottfredson, 1986; Schreck, 1999). Schreck found that individuals with low self-control have much higher odds than those with high self-control to be victimized, and men are almost twice as likely as females to be victims of crime. However, more women than men report physical and sexual abuse prior to incarceration and generally report more maltreatment as children (Bill, 1998; McClellan et al., 1997). In 1998, females were the victims in 72% of intimate murders and the victims of about 85% of nonlethal intimate violence (U. S. Department of Justice 2003, p. 2). While men are more likely to be victimized by a stranger, women are more likely to victimized by an intimate (Schreck, 1999).

Chesney-Lind (1998) found that women report abuse early in life, with the abuse continuing throughout adulthood. In contrast, of the men who reported early abuse, their abuse did not continue to adulthood. In addition, the female s prior victimization and abuse have been shown to affect her propensity to criminal behavior more so than men. Usually women have a much longer history of abuse, both physical and sexual, than men (Bill, 1998). Tjaden and Thoennes (2000) found evidence that a women s experience of violence from a marital or cohabiting partner is greatly different than the experiences of men. Understandably, depression

caused by self-blame is more of a manifestation of female's victimization than a male s (McClellan et al., 1997).

Victimization in Childhood

Browne et al. (1999) reported that early exposure to violence in childhood or adulthood increased a female s risk of use of violence as a defense to defend herself or others. Similarly, men who reported a higher prevalence of victimization from homes with parental fighting reported higher incidents of criminal offending (White & Chen, 2002). Tjaden and Thoennes (2000) find that both males and females physically abused as children by a parent or care-giver are twice as likely as those not so abused to be physically assaulted as adults. Females sexually abused or raped as children are twice as likely as those not abused to be raped as adults (Tjaden & Thoennes).

Abuse from an Intimate

The abuse a female receives at the hands of a family member or an intimate may especially cause long-term effects that can lead to violence (Browne et al., 1999). For instance, McClellan et al. (1997) found almost 30 times more females than males reported sexual abuse or rape. In addition, Tjaden and Thoennes (2000) found "women are at a greater risk of intimate perpetrated violence than men" (p. 156) and their study supports the findings from the National Crime Victimization Survey (Bureau of Justice Statistics, 1998). Intimate violence that is manifest from dating, marital, and non-marital relationships comes from the same origins (Browne et al. 1999; Browne & Williams, 1993; Ogle et al., 1995). One of these origins is severe and steady abuse at the hands of an intimate that Browne et al. (1999) found among women in a maximum-security facility.

Violence as a result of abuse is the "predominant reason for female's incarceration" (Browne et al., 1999, p. 317). Vernon and Carbonell (2001) found a completely different result

among male violent offenders with their research indicating that only 16% of the male prisoners were victimized either by a relative or an intimate. In 2001, only 3% of all nonfatal violence by intimates was against men compared to 20% against women (U. S. Department of Justice, 2003).

A victimized female often reacts to her abuse with violence that turns deadly. Victimized females who are at a constant risk of physical assault and death are at increased risk of attacking with violence in their own defense. Prior research suggests that female victims imitate aggression they learn from their abuser, with some internalizing aggression, and others reacting impulsively on their anger (McClellan et al., 1997; Verona & Carbonell, 2000). Other researchers who studied female prisoners noted similar reports of internalized anger and emotional distress (Carmen et al., 1984; McClellan et al.).

Internalized Anger and Aggression

The motivation to commit violence is different for women and men, and the circumstances are also different. Males use instrumental aggression to achieve a specific end while a female s main objective is to harm another (Verona & Carbonnell, 2000). Browne and Williams (1993) report that aggression in close relationships is a leading factor in partner violence especially in non-marital relationships. Verona and Carbonell gathered data on female prisoners convicted of non-violent offenses, one violent offense, and multiple offenses and found that most of the females incarcerated for violent offenses were convicted of only one violent offense. They also found that the first-time offenders committed their crime from anger and aggression that they in turn directed towards someone familiar to them.

Even though " More females are now being convicted of crimes usually associated with male behavior" (Verona & Carbonell, 2000, p. 177) more than half of them are serving their first sentence. Verona and Carbonell found more overcontrolled anger and aggression in violent female offenders than in violent male offenders. Whether from physical, sexual, or emotional abuse, prior research suggests that victimization and internalized anger clearly are factors leading

to female crime. Frustration may cause men more so than women to react violently because men's inhibitions tend to be lower than that of females (Verona & Carbonell).

Verona and Carbonell (2000) use the term "overcontrolled" to describe females who internalize emotions of anger and accumulated aggression to a high level. They concluded from their research that these females suppressed their emotions from their abusers to prevent further victimization. Because a female is unable to vent her emotions at the time of the violent victimization, she internalizes them. This internalization is the main characteristic of the overcontrolled female (Verona & Carbonell) and her accumulation of emotions increases her risk of violent offending directed towards her abuser. Furthermore, first-time female violent offenders and repeat offenders internalize their emotions from their overcontrolled hostility resulting in their sudden attack of violence (Verona & Carbonell).

In contrast to this characterization of females, Verona and Carbonell's (2000) characterize males who have "lowered inhibitions against aggressive behavior" (p. 178) and who use violence as a response to frustration as "undercontrolled". In contrast to males, the overcontrolled female usually manifest less current aggression allowing anger to build to the level where she reacts with extreme violence. Verona and Carbonell s study found that these females suffered from past mental, physical, and sexual abuse. Thus, first-time violent female offenders are characterized by this state of over-control that leads to their violence and inevitably to their present incarceration, whereas males exhibit an undercontrol for their hostility leading to more repeat offenses (Verona & Carbonell).

Familial Impact

As previously reported, victimization affects males and females differently, and the family can impact males and females with the same negative results. Prior research indicates that the family is more important to the female offender and has a greater impact on her offending than it does on the male offender (Kemppainen et al., 2002). Because women are the main care-givers,

they are viewed by many as the family (Beutel & Marini, 1995). In addition, women remain closer to their immediate family than men from adolescence into adulthood, and this holds true even while in prison (Daly, 1987, 1989). In contrast, the family is not a consideration with the male offender; there is very little research on the relationship of the family and the male offender because males are less likely to attach or bond to their parents (Alarid et al., 2000).

Attachment begins at birth and research suggests that females are more closely supervised in youth than males, decreasing their opportunity to commit crime more so than males (Brannigan, 1997; Burton et al., 1998; Gottfredson & Hirschi, 1990; Karen, 1998). Attachments between parent and child greatly affect the child's self-control, consequently affecting the child's behavior towards society and eventually affecting future criminality from adolescence into adulthood (Gottfredson & Hirschi; Karen; Hirschi, 1969). Attachment and self-control are important elements of parenting and the lack of either can greatly increase the risk of criminal behavior (e.g. Akers, 1997; Brannigan, 1997; Burton et al., 1998; Hirschi, 1969; Gibbs et al., Gottfredson & Hirschi; Hirschi & Gottfredson, 2000; Longshore, 1998; Stylianou, 2000; Vold, Bernard. & Snipes, 2002). Moreover, attachment is the building block of the elements of parenting.

By controlling for these elements in the household with children, financial status should not be a factor (Gottfredson & Hirschi, 1990), but other researchers have found contrary results. For instance, Heimer and De Coster (1999) reported that parents from lower economic status are not as likely as those parents of higher socioeconomic status to properly supervise their children. More recently, other researchers found that lower social class, welfare recipients, and female-headed households negatively affected the emotional bonds of families leading to a higher risk of association with violent peer groups (Rosenbaum, 1989; Small, 2000; Steffensmeier & Allan, 1996; Tittle et al., 1978). Contrary to these findings about the importance of socioeconomic status to social bonds, numerous researchers agree that the family unit still remains an important element in the development of criminal behavior (Brannigan, 1997; Gottfredson &

Hirschi, 1990; Hirschi, 1969; Longshore, 1998; e.g. see: Arneklev et al., 1993; Brownfield & Sorenson, 1993; Gibbs & Geiver, 1995; Grasmick et al., 1993; Keane, Maxim, & Teevan, 1993; Polakowski, 1994; Wood, Pfefferbaum, & Arneklev, 1993).

On a different note, some researchers suggest that the presence of violence in many homes leads to delinquency in girls more so than in boys, and research further suggests that family violence and possible abuse has a negative impact on the females futures (McClellan et al., 1997; Rosenbaum, 1989). Emotional bonds to the family along with supervision and discipline directly affect female violence (Heimer & De Coster, 1999). Gottfredson and Hirschi (1990) tell us that supervising children, recognizing deviant behavior in children, and punishing that deviant behavior are three important elements to raising children. Similarly, Heimer and De Coster concluded from their study that females are usually better supervised than males. Furthermore, because females are usually more emotionally attached to family and more intimate within these relationships, they are more affected by prior family victimization than men (Beutel & Marini, 1995).

The Family Unit

Researchers also have studied with whom the offenders lived prior to incarceration to determine the importance of personal relationships to future criminality. Parental attachment is a consistent and significant predictor for females in all types of crimes, and the family unit is found to have the most profound effect on the seriousness of criminal behavior (Alarid et al., 2000; Brannigan, 1997; Burton et al., 1998; Gibbs et al., 1998). Heimer and De Coster (1999) found that females have stronger emotional bonds with their families than males, bonds that directly affect their criminality or lack thereof. The emotional bonds between the offender and her family "Will have a strong impact on offending by females [and] girls' learning of violent definitions will be shaped primarily by the indirect control achieved through emotional bonding to families" (Heimer and De Coster, p. 285). These emotional bonds encourage families to teach

girls that violence is a male behavior and not a female one (Heimer & De Coster). Alarid et al. (2000) found that a female s marital status is a much stronger predictor of crime than a male s marital status is. In fact, Alarid et al. reported that women were more likely to commit drug offenses or property offenses if they are married or living with an intimate. This is not true for males.

In terms of particular family members, researchers found that mothers had the most effect on juvenile girls and consequently on their adult criminality. (Kemppainen et al., 2002). In addition, prior research reports on the importance of the mother and daughter attachment, and on the possible association between future criminality and unwanted pregnancy (Kemppainen et al.). Fathers as well as mothers can affect the future criminality of their children. The absence of the father from the home is a factor in future offending. For example, Kemppainen et al. analyzed data from a birth cohort in Finland and found that the risk of criminality more than doubled for females with the absence of the paternal figure. They concluded from their research that the presence of the father in the life of females is much more significant than it is with males.

McClellan et al. (1997) conclude from their study on inmates that men are more likely to have been raised by both biological parents than were women. However, Loucks and Zamble's (1999) results indicate that both male and female offenders spent " their first five years of life with adults other than their parents" (p. 29). Moreover, Loucks and Zamble used the words substantial proportion of offenders to indicate their statistical numbers, leaving doubts to the actual number of offenders who are actually raised by someone other than their parents.

Parents as well as other family members can affect future criminality through their own behavior. Moreover, the family s criminal history can be a predictor of criminal offending. Rosenbaum (1989) found from his study that 76% of incarcerated females have at least one family member with a criminal record. In terms of substance abuse, McClellan et al. (1997) found fewer than 48% of females reported close relatives or biological parents with drug or alcohol problems compared to 31% of males who did.

Children can also play an important role in predicting behavior. Gender differences in the emotional investment in children differ when examining relationships to children prior to conviction. Fewer than half of the men who had children were living with their children when convicted whereas among the women with children, more than 75% lived with their children (Chesney-Lind, 1998; U. S. Department of Justice, 1997). Consequently, the female offender is affected by the living arrangements of her children more so than the male offender. Children of female offenders are often found living with their maternal grandmothers after their mothers are incarcerated, usually in a home different than their own. Children of male offenders usually lived with the biological mother, which is where they lived prior to the father's incarceration (Chesney-Lind).

Children not only can affect behavior outside of prison but can also impact an inmate during incarceration. Chesney-Lind (1998) found from her studies of women in prison that of the 60% who had children, over half never received visits. Of those whose children did visit, the visits were infrequent or less than monthly. Moreover fewer than 20% of females attempted to communicate with their children through letters (Chesney-Lind).

Mental Disorders in Inmates

Females continue to be overlooked in the criminal justice system, and correctly diagnosing female inmates with mental disorders is yet another way they are neglected. For instance, more women than men incarcerated in the State and Federal prisons suffer from depression and anxiety, but research is almost non-existent (Keaveny & Zauszniewski, 1999; McClellan et al, 1997; Ogle et al., 1995). In addition, over a third fewer men than women reported taking prescribed medicine for psychological disorders while incarcerated (Maden et al., 1994).

Although the number of women entering prison with some form of mental disorder is

increasing, there is a paucity of research in this area (Keaveny & Zauszniewski, 1999). Whether women receive the needed services while incarcerated has also never been examined prior to Teplin, Abram, and McClelland's 1997 study on incarcerated females. Marquart, Brewer, Simon, and Morse (2001) further noted the lack of data on female prisoners and reported that research has been limited to males.

Kemppainen et al. (2002) reported that anti-social behavior is increasingly being found in females, and stated that studies in the early 1990s show that males have a high incidence of antisocial behavioral problems. However, Kemppainen et al.'s study did not include incarcerated women. Because studies are rare on mental disorders in women prisoners, researchers and clinicians frequently suggest that men have a higher incidence of mental disorders than do women. Teplin (1990) reported that prior to her present ground-breaking study, incarcerated men have been examined much more frequently than women. Consequently, not much is known about psychopathology in female inmates because studies on male prisoners cannot be generalized to female prisoners (Keaveny & Zauszniewski, 1999). In terms of policy implications for correctional officials, the limited generalizability of male findings to incarcerated females can be seen in the many differences in managing males and females in correctional institutions (Marquart et al, 2001; Teplin, Abram, & McClelland, 1996; Teplin et al, 1997).

The consensus of many researchers is "that gender affects how mental disorders are defined and treated" (Teplin et al., 1997, p. 604). Maden et al. (1994) found that more female offenders than males received a sentence involving psychiatric treatment even when men showed more disturbed behavior than the women. They also suggests as a result of their research that more women who criminally offend are mentally disturbed than are not. Gibbs (1971) reported that 15% of women in British prisons were suffering some form of mental disorder, and Morris (1987) found the figure for males to be higher, at 34%.

Maden et al. (1994) found more women reported prior psychiatric treatment prior to incarceration than men. Teplin et al. (1996) found a high prevalence of psychiatric disorders among women incarcerated in prisons. Of incarcerated females diagnosed with major mental disorders (e.g., schizophrenia, bipolar disorder), Teplin et al. (1996) found that only 20% were arrested for violent crimes and determined that more men than women received needed services for mental illness. Knowing this level of service, more females than males suffer from moderate to severe depression (Keaveny & Zauszniewski, 1999; Loucks & Zamble, 1999; Ogle et al., 1995). In a later study, Teplin et al. (1997) found from their data of 1272 women inmates that of the 955 who need treatment, over 89% do not get it. Consequently, criminal history and treatment history affect the odds of receiving treatment (Teplin et al., 1997). While a history of treatment for prior mental disorders increases the odds of further treatment, prior arrests decrease the odds (Teplin et al., 1997).

In addition, psychopathy, known in DSM-IV as antisocial personality disorder or APD, is another mental disorder that receives much research attention. Loucks and Zamble (1999) found a lower incidence of psychopathy in male offenders than found in the earlier studies they used for comparison. Conflicting results were found a few years later with the results from a study by Jackson, Rogers, Neumann, and Lambert (2002). They reported that psychopathy is much more prevalent in men than in women offenders. Jackson et al. further concluded as result of their study on male and female offenders that men are more likely to be classified as psychopaths than females. Mateyoke-Scrivner (2003) found no significant relationship between the duration of the male s criminal history and the presence of mental disorder.

Almost a decade before Jackson et al. s (2002) study, Maden et al. (1994) studied a sample of female inmates on numerous characteristics with mental disorders and compared the results with a study on comparable male inmates. Over half of the women were diagnosed with one disorder compared to only a little over a third of the men (Maden et al.). The most prevalent

disorders among women were drug abuse/dependence followed by personality disorders and neurosis. Maden et al. also found the most common disorders in the men were alcohol and drug abuse disorders followed by personality disorders. They also reported that personality disorders were the second most frequently occurring mental disorder in incarcerated women. Vitale et al. (2002) concluded from their study of female prisoners that negative events in a female s life increased her level of anxiety resulting in antisocial disorders. Consequently, antisocial disorders and anxiety could be leading causes of female criminal behavior, and more women than men report emotional problems involved with everyday living (McClellan et al., 1999).

Mental Disorders and Suicide

Charles, Abram, McClelland, and Teplin's (2003) study found that "Suicide is one of the leading causes of death in U.S. jails" (p. 65), and females are at a higher risk for suicide. In their research, Charles et al. concluded that over 50% of the women they sampled had at least one risk factor for suicide including thoughts of death or suicide, hopelessness, and previous suicide attempts. Many of the suicide attempts by females originate from stressful life events just prior to their attempted suicide (Keaveny & Zauszniewski, 1999). Loucks and Zamble (1999) found a much higher rate of suicide attempts by females than by males, and Charles et al. reported that the screening process for women entering custody of the prison system is critical and in need of "therapeutic supervision" (p. 76).

Mental Disorders and Substance Abuse

Goodwin (1991) found no evidence of antisocial personality disorders in females, and concluded that this disorder was much more common in men. Due to their research on 1272 incarcerated women, Teplin et al. (1996) found that over 70% of these women reported substance abuse and of the 18% with lifetime prevalence of severe mental disorders, over 59% reported

substance abuse problems. McClellan et al. (1997) found that substance abuse by women can lead to anxiety and negative feelings which in turn can lead to antisocial disorders and depression.

Hiday (1995) found that convicted violent offenders had an increased risk of violence from substance use and were consequently diagnosed as mentally disordered on entrance into the criminal justice system. On closer inspection of the offenders diagnosed with mental disorders, the results indicate the offenders are substance abusers (Hiday). Marquart et al. (2001) found that substance abuse was prevalent in women who had used mental health services prior to incarceration, and that most were incarcerated for drug and property offenses. Marquart et al. also found in their study of incarcerated women, that many women had violent offense histories.

Behavior Within the Prison

Evidence of existing studies of prisoners behavior within the system is minuscule. Of the studies located, the number on men studied once again greatly outnumbers that of women studied. Researchers are more likely to study male inmates because of the amount of data available on males and the ease with which the data are obtained (Tischler & Marquart, 1989). Moreover, women who did not follow the rules of the prison officials are traditionally not considered physically threatening or in violation of behavior rules; instead their behavior is presumed hysterical (Dobash, Dobash, & Gutteridge, 1986; Tischler & Marquart).

In 1996 Craddock reported on the absence of any data on women s behavior during incarceration prior to her own study. The results of research that are available on women's and men s behavior within the prison community are inconsistent across researchers. Lindquist (1980) found that the number of disciplinary offenses committed by female inmates is much higher than male inmates. Contrary to that finding, Tischler and Marquart (1989) reported that more males violate prison rules and are subject to disciplinary actions than female prisoners.

However, their own research only found that few men violate the rules at 28.9% compared to women at 26.3%.

Women and men differ in their causes of prison infractions. Women may feel anxiety towards the separation from their children that leads to rebellion resulting in altercations with the prison officers (Craddock, 1996). A female s rebellious behavior may explain that disobeying prison officials is the most common violation among females. Tischler and Marquart (1989) found similar results 17 year earlier in their study that reported that women most frequently refuse to obey orders, create a disturbance, use vulgar language or are not at their assigned locations. Craddock (1996) found that fewer women than men violated rules while incarcerated with patterns of misconduct there were similar. Moreover, the males tend to fight with other inmates resulting in disciplinary action (Craddock; Lindquist, 1980). In contrast, Dobash et al. (1986) found that women behave more violently within prison than men even though men commit more violent crimes than women outside of prison.

Results of prior studies found inconsistencies in the results of types of disciplinary action imposed on males and females. Maden et al. (1994) found that more females than males were punished for their behavior by receiving disciplinary actions while in prison. In addition, men were more likely to be transferred to other facilities for their punishment. Lindquist (1980) found dissimilar conclusions 14 year earlier in his results that females "received significantly less severe punishment" (p.308) for the majority of all offenses. Craddock (1996) also found that women are more likely than men to attempt escape or commit nonviolent offenses.

Not only are there differences in prison behavior between men and women but also the reactions and treatment inmates receive from prison officials differ. The findings on women inmates suggest that prison rules are more strictly enforced against women than against men (Craddock, 1996; Maden et al., 1994). Moreover, Maden et al. found that women are more likely to be disciplined for insignificant offenses than are men. Over 10 years earlier, Dobash et al.

(1986) found that prison officials are quicker to discipline women than men for the same infractions. In contrast, Tischler and Marquart (1989) found that the rule violations of the male inmates are usually more serious violations than that of the females.

Perhaps the prior criminal record of offenders predicts disciplinary infractions in prison. Simon (1993) found in her study on violent male inmates that there are only two characteristics of male inmates that can be strong predictors of behavioral problems. Simon (1993) concluded that substance abuse, offense history, and prison visits do not predict behavioral problems but the "number of juvenile convictions and serving a prior term" (p. 503) can predict prison behavior in violent males. There is no comparable study of the variables that can predict the negative prison behavior in female inmates. This current study will provide the only research on this topic.

Researchers explain these differences in their findings as incongruities when perhaps they are due to a change in the type of female offender now incarcerated as opposed to 20 years ago. Researchers maintain that the male offender is still more violent than the female offender so that it is reasonable to think that males would continue to behave worse in prison than females. Researchers also suggest that the female offender is becoming more violent and her offending is becoming more frequent so that it is conceivable that female behavior in prison would change as well.

Rehabilitation and Correctional Programs Within Prisons

The 1950s and 1960s was a time of emphasis on rehabilitation and treatment programs for inmates. By the end of the 1970s, the criminal justice system and departments of corrections shifted back to deterrence and punishment and away from rehabilitation (Martinson, 1974; Sechrest et al., 1979). Prisons no longer function as originally intended only to hold prisoners awaiting trial or as strictly punishment as in some countries (Foucault, 1995). Even

though rehabilitation was stated by many researchers to have no appreciable effect on recidivism rates, programs now being offered in Federal and State Prisons throughout the United States focus on educational and vocational training, individual counseling, group counseling, medical treatments, and psychotherapy. Counselors and other professionals working in these programs aim to help inmates in refraining from future offending. According to the Law Enforcement Assistance Administration (1995) programs for adult female criminals need to be a higher priority than ever due to the increase in female inmates. Moreover, it is difficult to rehabilitate someone who has never been habilitated, but there are programs available within correctional facilities that can better prepare incarcerated males and females to succeed outside of prison.

Substance Abuse Treatment

Peters and Steinberg (2000) conducted a very significant study on the substance abuse treatment within correctional facilities. They found that the cause of the drastic increase in prison population is related to increases in drug convictions and suggested the need for more treatment programs within prisons. The provision of substance abuse treatment programs are not legally mandated by the courts as of yet (Peters & Steinberg, 2000). One of the more recent rulings by the Supreme Court (*Kerr v. Farrey, 1996*) restricted U.S. prisons from requiring inmates to attend treatment programs that included any religions content (Supreme Court of the United States, n.d.). Prisons have developed numerous substance abuse programs and have encouraged inmates to participate with the creation of self-help programs such as SMART Recovery, Secular Organization for Sobriety (SOS), Rational Recovery, and the 12 Step program (Peters & Steinberg; U. S. Department of Justice, 1998, 2000).

Currently there are no specific written policies or guidelines for these programs even though the American Correctional Association has initiated several that may be relevant to treatment of substance abuse (Peters & Steinberg, 2000). In addition, the National Institute on

Corrections and the Substance Abuse and Mental Health Services Administration have recommended guidelines for treatment at the state level (Peters & Steinberg). Despite the absence of these requirements, many facilities such as Black Mountain Correctional Center for Women in North Carolina require offenders convicted of drug offenses to enroll and complete programs to assist the offender in their rehabilitation.

Mental Health Treatment

Hartstone, Steadman, Robbins, and Monohan (as cited in Teplin, 1999) reported on the need for programs that treat the mentally disordered inmate. Mentally ill inmates get bounced between mental health facilities and correctional facilities because of a lack of consensus as to who is responsible for their care. Correctional officers usually make the first referral of a mentally disordered inmate (Conover, 2001) and if a disorder is never recognized, then it is never treated. In state institutions, the staff reported to the Hartstone et al. (as cited in Teplin, 1999) study that 5.8% of all inmates are mentally disordered and almost 40% are in need of some kind of mental health treatment. Additionally, many members of the staff reported low percentages for those who actually would receive needed treatment. Many states have specific institutions designated as institutions for the care of those diagnosed as needing medical treatment for mental disorders.

Academic and Vocational Programs

Gerber and Fritsch (1995) conducted a study of the academic and vocational programs available to prisoners incarcerated in state and prison facilities. Their research resulted in mixed findings of the effects of education on recidivism rates. Gerber and Fritsch suggest that educational programs do positively affect future offending. They found that more success is seen in programs that separated inmates in treatment from those who were not, and that programs are more successful the longer the treatment time. Programs that target the intended inmates for

specific treatment and those that offer assistance after release are identified by Gerber and Fritsch as more successful. They found that vocational and educational programs within the institution reduces disciplinary problems during incarceration, reduces recidivism, and increases the chance at future education and employment.

State Programs

Many states now have substance abuse treatment programs available in their prison community. California has the Amity Prison Therapeutic Community located at the R. J. Donovan Correctional Facility; Delaware has the Key-Crest Program; Florida has a Tier Programs dating back to the early 1970s, located in 46 major institutions and many more community facilities; New York has the Stay'n Out Program located throughout the state, which is one of the longest running programs; Oregon has Turning Point Alcohol and Drug Program located at the Columbia River Correctional Institution, the Powder River Alcohol and Drug Program located at the Powder River Correctional Facility and one that they modeled after New York s Stay n Out, the Cornerstone Program, located in the Oregon State Hospital; Texas has the Substance Abuse Felony Punishment (SAFP) program and the In-Prison Therapeutic Community Treatment (ITC) located in their prisons throughout the state (Latessa, Holsinger, Marquart, & Sorensen, 2003).

Federal Programs

Thirty-four of the prisons in the Federal Bureau of Prisons have residential treatment programs (p. 315) that vary from 6 to 12 months of treatment targeting "approximately 55% of US prisoners [who] have an alcohol or drug use disorder" (Peters & Steinberg, 2000, p. 322). A comprehensive substance abuse treatment strategy began in 1989, designed by the Bureau of Prisons. All federal facilities offer self-help programs through non-residential

treatment as well as counseling with individual and group therapy (Peters & Steinberg; U. S. Department of Justice, 2000). Substance abuse treatment is only mandatory to those inmates when there is pre-sentence evidence of substance abuse, where the judge has recommended treatment or when the offender violated release conditions based on substance abuse (U. S. Department of Justice, 2000). Federal Prisons operate similar to state prisons in relation to training. Any inmate who is medically able works within the institution as a food service worker, factory worker, janitor, or groundskeeper. Federal inmates are required to work towards their education in the literacy programs for a minimum of 240 hours or until they obtain the GED (U.S. Department of Justice, 2000, p. 2).

Summary of Prison Programs

The results of most programs are very positive and encouraging, with many showing a significant decrease in drug use by their participants. Peters and Steinberg (2000) reported that the longer individuals stayed involved in these programs, the lower their risk for future offending. The findings from Peters and Steinberg contradict Martinson's (1974) "nothing works" with reports from positive outcomes from participation in substance abuse treatment programs. The Center for Substance Abuse treatment (1997) corroborates these positive affects of treatment in reducing criminal behavior for those inmates completing in-prison treatment programs. Furthermore, Sechrest et al. (1979) stated that many programs do show positive results, but researchers such as Martinson, "overlooked" (p. 32) the positive findings of rehabilitation. Aftercare treatment also has positive results by significantly reducing the risk at future offending as well as increasing the length of the treatment (Sechrest et al.). Peters and Steinberg s research concluded that not only do many of the present programs work, but also more programs need to be initiated within the prison community.

Martinson (1974) published widely publicized research that stated, "With few and

isolated exceptions, the rehabilitation efforts that have been reported so far have had no appreciable effect on recidivism" (p. 268). Sechrest et al. (1979) in a National Academy of Sciences' report reported that based on literature that was available to Martinson, his conclusions were correct but "many of the interventions tested [by Martinson] seem to have been so weak in proportion to the problem involved that it would scarcely have been credible had any effect been found" (p.32). Sechrest et al. concluded that the weak methodology of past rehabilitation studies combined with weak treatments with little theoretical bases made it impossible to accurately gauge the effectiveness of treatment programs for criminal offenders.

The studies on group counseling and work release also did not result in supportive evidence from Martinson's (1974) research, but Sechrest et al. (1979) stated that the evidence available is not consistent. Sechrest et al. found programs that do appear to reduce the number of criminal offenses from released inmates such as programs in California, North Carolina, Massachusetts, and Florida. Other researchers (see: Jeffrey & Woolpert 1974; Rudoff & Esselstyn 1973; Waldo & Chiricos 1977; Witte 1977) found positive affects on recidivism from programs but the results do not justify any policy recommendations (Sechrest et al.).

Policy makers and correctional officials need to address the increasing number of women in correctional institutions with programs tailored to their specific needs. Sechrest et al. (1979) left open the question of whether intervention from programs with criminal offenders work. The current interest in therapeutic courts (Simon, 1993) suggest that public policy is shifting in favor of treating criminal offenders with therapeutic modalities like drug and mental health treatments. Female inmates have different academic and vocational needs as well as work programs needs than those of the male inmates. Moreover, past research suggests that female inmates have greater needs for mental health treatment as well as programs to address the needs of children whose mothers are incarcerated.

Limitations of Prior Research

To date, no study has compared female inmates with male inmates on prior victimization, prior substance abuse, mental disorders, prior and current family relationships, prison behavior, and participation in prison programs using the survey. Prior research on female criminal behavior in relation to these variables has produced contradictory results. Moreover, understandably female criminal behavior is important to criminal justice and needs to be explored in more depth. The female criminal has routinely been neglected in research, and this study focused on comparing male and female inmates. This study provides the only examination to date on this topic and lays the foundation for future research in this critically important area.

CHAPTER 3

METHODS

The goal of this study was to examine similarities and differences between male and female inmates using the Survey of Inmates of State and Federal Correctional Facilities (Survey) collected by the U. S. Bureau of Justice Statistics in 1997. Variables to be examined included criminal history, prior victimization, prior substance abuse, mental disorders, inmate program participation, prison behavior, and family communication. As of this date, no such study has been conducted using the Survey. The results of this study will aid policymakers and correctional officials in assessing the differential needs of male and female inmates in our criminal justice system.

Survey of Inmates in State and Federal Correctional Facilities, 1997

The Survey of Inmates in State and Federal Correctional Facilities (Survey) is collected by the United States Department of Justice every five years. This research focused on the 1997 survey. The survey is collected by U. S. Bureau of Justice Statistics and the Federal Bureau of Prisons. The U.S. Department of Commerce surveyed the inmates. The survey consist of a combination of two surveys, the 1997 Survey of Inmates in Federal Correctional Facilities and the Survey of Inmates in State Correctional Facilities, both conducted by the U. S. Bureau of the Census. For the purpose of the survey "for both State and Federal inmates, the correctional facilities were separated into two sampling frames: one for prisons with male inmates and one for prisons with female inmates" (U. S. Bureau of the Census, 2000, p. 3). The facilities that house both males and females were treated independently depending on their relevance to either the male or female population.

State Prisons Selected for the Survey

The sample of state prisons for use in the survey was selected from 1,409 prisons (U. S. Bureau of the Census, 2000). The 13 largest male prisons and the 17 largest female prisons were selected for the sample. In addition, 1,265 male prisons and 261 female prisons were grouped into 7 strata by census regions from states in the northeast (excluding New York), south (excluding Texas), Midwest, west (excluding California), and the individual states of New York, Texas, and California. Facilities within each stratum were arranged by population size, security level: administrative, maximum, high, medium, low, minimum, and none, and by facility type: confinement or community based. The state facilities included in the list for selection came from 1,131 male prisons, 131 with only female inmates and 147 with both male and female inmates (U. S. Bureau of the Census). Of these numbers, 280 were selected and 275 participated: 220 male prisons and 55 of the original 60 female prisons. The number of facilities actually selected to be used in the sample are listed in Table 1. In the case that any prison refused participation, there were two independent reserve samples that included 20 additional facilities, 4 female and 16 male (U. S. Bureau of Census, 2000).

Table 1
Inmates and Prisons Included in the Survey

	State			Federal		
Sample	Male	Female	Total	Male	Female	Total
Prisons Selected	220	60	280	32	8	40
Prisons Participated	220	55	275	32	8	40
Inmates Expected	12,166	3,283	15,449	3,602	1,001	4,603
Inmates in Sample	12,269	3,116	15,385	3,525	954	4,479
Inmates Interviewed	11,344	2,941	14,285	3,173	868	4,041

Federal Prisons Selected for the Survey

There were fewer federal prisons (127) than state prisons (1,278) used for this survey. The sample of federal prisons included both male and female facilities from a total of 105 with only male inmates, 14 with female inmates and 8 with both male and female inmates (U. S. Bureau of Census, 2000). There were 40 prisons selected and 40 participated as illustrated in Table 1. Two female facilities and one male facility were assured selection and the remaining prisons were grouped into 5 strata for the males and 2 strata for the females. Facilities were ordered by population size and based on security level: administrative, high, medium, low, and minimum for female and male facilities. (U. S. Bureau of the Census, 2000).

Sample Selection

The sample used to collect data for the U. S. Bureau of the Census (2000) was not a simple random sample but a complex clustered sample[2]. There were two stages to the sample selection. The first stage selected the prisons and second stage selected the prisoners.

Prison Selection. In the first stage of the sample selection, the number of sampled facilities in the stratum was determined and used to calculate the sampling interval (U. S. Bureau of the Census, 2000). The total population of either males or females in non-self-representing prisons in a stratum was divided by the total population of either males or females in all non-

[2]This sample was compiled by using complex clustered sampling. Clustered sampling is used when the sample or population is too large so the sampling units are reduced in number to increase the accuracy of the study. In the case of this survey, the prisons selected are considered primary sampling units (PSUs). For each PSUs, proportions were obtained that reduced the sample size for surveying. Complex sample designs use not only cluster sampling techniques but also stratification of clusters. Variances are computed separately for each stratum and statisticians employ specific devices to reduce computational burden of variance estimation. (Tom Zelnock, Personal Communication, August 20, 2003).

self-representing prisons (U. S. Bureau of the Census, p. 4). Then the "males or female non-self-representing population" (p. 4) was divided by the number of desired sample prisons in order to calculate the sampling interval within each stratum. A random start was also used with a value between 0 and the sampling interval. "Variance within the stratum was also allowed for by selecting at least 2 non-self-representing facilities" (U. S. Bureau of the Census, pp. 4-5).

State Inmate Selection. In the selection of the inmates in the second stage, state and federal inmates were selected differently. State inmates were selected and numbered from all of those occupying a bed the previous night of the selection. A computer with the total number of the state inmates entered by the interviewers randomly selected numbers. A starting point and skip interval were also randomly included in the selection. The size of the State facility and the gender of the inmates in the facility determined the total number selected for each correctional facility. As a result, 1 in every 17 females and 1 in every 75 males were selected for the interviews. There were 4,042 interviews completed for the Federal survey.

Federal Inmate Selection. Drug offenders occupy a large proportion of the inmates in federal prison so 1 in ever 3 drug offenders along with all the non-drug offenders were selected from the first set of inmates. A random start and predetermined sampling interval were used in the other set to select the male and female inmates for the sample. As a result, 1 in every 3 females was selected for the interviews and 1 in every 13 males. There were 14,285 interviews completed for the State survey.

Sample of Prisoners in the Survey

A random sample of 19,864 inmates was selected for the survey out of 1,053,451

of the total population of inmates incarcerated in 1997. Of the 19,864 inmates selected, 15,385 were from State Prison Facilities and the remaining 4,479 were from Federal Prison facilities. Out of the sampled inmates, 18,326 were actually interviewed and out of those, 3,809 were females and 14,517 were males[3]. The breakdowns for federal and state prisons are presented in Table 1.

Interviews lasted approximately one hour and interviewers used questions provided by a computer-assisted personal interview (CAPI[4]). The computer prompted the interviewer to continue to specific questions depending upon the inmates answers. Inmates were informed that their participation was voluntary and confidential and used for statistical purposes only[5]. The non-response rate for state inmates was 7.8% and 9.8% for federal inmates, both male and female). Inmates were personally interviewed between June and October 1997 (U. S. Bureau of the Census, 2000).

Variables in the Survey

The Survey compiled by the U.S. Bureau of the Census (2000) consists of a

[3]The Survey includes a variable to control for duplication. In the case that a prison contained fewer inmates than expected to be interviewed, the control variable accounts for a possible shortage in inmates. Variable v2058 is the duplication control variable.

[4]CAPI is an application programming interface standard used to access ISDN equipment connected to basis rate interfaces (BRI) and primary rate interfaces (PRI). Computers provide questions to the interviewer, including follow-up questions tailored to preceding answers (U. S. Bureau of the Census, 2000). By adhering to the standard, applications can make use of well defined mechanism for communications over ISDN lines, without being forced to adjust to the idiosyncrasies of hardware vendor implementations. CAPI is an invaluable tool to implement powerful communications applications. It is designed to be the base of a whole range of new protocol-stacks for networking, telephone, file-transfer, application sharing or any other application you can think of. (Common-ISDN-API).

[5]Inmates were informed in person and in writing of the confidentiality of the interview. Inmates were assured that no individual who participated would be identified in survey results (U.S. Bureau of the Census).

codebook and the data file with different syntax files for SPSS and SAS. The codebook describes the variables for the numeric variables and alphanumeric variables. The data file contains the actual variables and only the numeric variables were used for the purpose of this study. The numeric variables consisted of 2,325 variables divided over 10 sections including individual characteristics, current offenses, pre-trial release and trial, current sentence, incident characteristics, criminal history, socioeconomic characteristics, alcohol and drug use and treatment, health treatment, and conditions of confinement.

Weights Used for the Survey

Weights were used in the original design of the survey data set in order to compensate for over sampling of offenders. In the state survey, the drug sampling factor was calculated by multiplying drug offenders by 3 and non drug offenders by 1. "In some prisons, the sampling rate for a facility was adjusted because the actual number of persons in a prison on the sampling date was different from the expected number of inmates [that was] derived from the 1995 Census of State and Federal Correctional Facilities" (U. S. Bureau of the Census 2000, p. 6). To adjust the inmate sampling rate, the weighting control factor was applied[6]. The weights were adjusted using the formula adjusted weight=weight*(sample size)/(sum of weights)[7]. The weights that the original data set used were integers and not fractions and each person was worth several

[6]When the actual number was less than 80% or more than 120% of the expected number, the weighting control factor was applied to account for adjusting the inmate sampling rate. The weighting control factor is equal to the number of inmates in a facility on the interview date divided by the number expected for that facility. If the expected number was within 20% of the expected number, the weighting control factor was 1.

[7]A new variable was calculated for this study in order to compensate for the inflated sample size that arose from adding the original weights set in the data set. nefinwei=weight*18326/1148679

people; as a result, the sample size looked bigger than it really was. The adjusted weights still reflect the weight structure that the survey samplers created but does not inflate the sample size[8]. The problem with having inflated sample sizes is that any small difference becomes artificially significant because the standard error becomes very small when the sample size is very large (E. Seier, personal communication, October 8, 2003).

Errors Within the Survey

The survey contained sampling and non-sampling errors. Non-sampling errors consisted of failure to receive responses in all the cases from the inmates inability to respond, unwillingness to respond, or errors made in processing the data. Telescoping, a memory distortion where respondents have the tendency to recall events not relevant to the current analysis, can lead to incorrect results (Russell & Bolen, 2000). In addition to telescoping as a non-sampling problem, incompatibility of the data with other sources is also a non-sampling problem. The survey does not list any of the sources in which that incompatibility may occur. Sampling errors included the prisons and the prisoners failing to participate after selection in the first and second stage of the sample. Inmates refusing to participate resulted in "7.2 % second stage non-response among State inmates and 9.8% among Federal inmates" (U. S. Bureau of the Census, 2000, p. 16). The survey does not distinguish the non-response rate between male and female inmates, only including that of state and federal inmates. Moreover because "a sample was surveyed rather than the entire population" (p. 17), sample variability occurred. Generalized variance estimates used to compute the standard error with the U. S. Bureau of the Census

[8]The sample after adding the 'final weight' from the survey inflated the sample size to 1,148,679 and with the adjusted weight equation, the sample sized remained at 18,326.

software package (Vplex[9]) created errors in the survey as well.

Research Questions and Hypotheses

Research questions and hypotheses were derived from the literature review and from the reports from prior research.

Question One

What, if any, are the differences in criminal offenses between female and male inmates and federal and state prisoners? Do males commit more violent offenses than females, and what offenses do females commit more frequently than males? Is there any difference in commitment offenses among federal and state inmates? Research question number one examines differences in types of commitment offenses by male and female inmates in federal and state prisons.

Hypothesis 1. Female inmates are more likely to have violent commitment offenses than are males.

Hypothesis 2. Female inmates are more likely to have property commitment offenses than are male inmates.

Hypothesis 3. Male inmates are more likely to have drug-related commitment offenses than are female inmates.

Hypothesis 4. Federal inmates, both male and female, are more likely to have drug

[9]Vplex used replication techniques (jackknife, BRR, Fay's modified BRR) under ultimate cluster mode. Vplex used replicate weights, or can create replicates using survey identifiers of stratum, PSU and so on. Calculates variances, co variances, correlation and t-test for estimates of totals, means, proportions, and for subclasses also cross-tabulations. Contact http://www.census.gov/sdms/www/vwelcome.html (T. Zelnock, personal communication, August 20, 2003).

commitment offenses than are state inmates.

Question Two

What differences exist between male and female inmates in their prior criminal histories? Do male inmates have more numerous prior offenses than do the female inmates?

Hypothesis 5. Female inmates are more likely to possess more numerous prior convictions than are male inmates.

Hypothesis 6. Female inmates are more likely to possess prior convictions for violent offenses than are male inmates.

Hypothesis 7. Female inmates are more likely to possess more numerous prior probation sentences and more numerous prior prison sentences than are male inmates.

Question Three

Do federal inmates have longer criminal histories than state inmates? Research question three examines whether state and federal inmates, both male and female, differ substantially in prior convictions and sentencing resulting in prison sentences and probation.

Hypothesis 8: Federal inmates, both male and female, are more likely than state inmates to possess more numerous probation and prison sentences.

Question Four

Are there any differences in length of present prison sentences between male and female inmates and federal and state inmates? Research question three examines the presence of any differences in the sentencing to prison between male and female inmates and federal and state inmates regardless of gender.

Hypothesis 9. Male inmates have longer current prison sentences than female

inmates.

Hypothesis 10: Federal inmates have longer current prison sentences than state inmates.

Question Five

Are female or male inmates more likely to report family members with criminal histories? Question five examines the differences in inmates parental and other family members incarceration.

Hypothesis 11. Males are more likely to report that parents have an incarceration history than are females.

Hypothesis 12. Male inmates are more likely than female inmates to report that other family members possess an incarceration history.

Question Six

Do female inmates receive more communication, calls, letters, and visits from family members and children than male inmates while in prison?

Hypothesis 13: Females are more likely than males to report communication with family and children as measured by phone calls, letters, and visits.

Hypothesis 14. The communication that an inmate receives with family positively affects the inmates behavior during their incarceration. In other words, inmates who received no communication from outside the prison have more infractions than those who received as little as one form of communication monthly.

Question Seven

Are females inmates more likely to report physical and sexual abuse histories than are male inmates?

Hypothesis 15: Female inmates are more likely to report a history of sexual and physical abuse than are male inmates.

Question Eight

Are female inmates more likely to report substance abuse histories than are male inmates? Are females more likely to have begun abusing substances at an earlier age than males? Are females more likely to report having abuse/used drugs at the time of the commitment offense? Are there any differences in substance abuse problems between federal and state inmates?

Hypothesis 16: Female inmates are more likely to report substance abuse at the time of their commitment offense than are male inmates.

Hypothesis 17. Female inmates are more likely to report using drugs and/or alcohol for the first time at an earlier age than are male inmates.

Hypothesis 18. Female inmates are more likely to report using alcohol at the time of their commitment offense than are male inmates.

Hypothesis 19: Federal inmates are no more likely to report using alcohol than are state inmates.

Question Nine

Are female inmates more likely than male inmates to experience mental disorders like anti-personality disorder? Are female inmates more likely to report using medications for mental disorders prescribed by physicians than are male inmates? This questions is designed to examine the relationship between gender and mental disorders in inmates.

Hypothesis 20: Female inmates are more likely than male inmates to report receiving prison treatment and medication for mental disorders during their current commitment.

Hypothesis 21: Female inmates are more likely to have received medication prescribed by a physician for mental disorders prior to their current incarceration than are male inmates.

Question Ten

Are female inmates more likely to report participation in prison programs like educational programs, drug and alcohol programs, and vocational programs than are male inmates?

Hypothesis 22: Females are more likely than males to report participation in all types of programs while incarcerated on their current sentence.

Hypothesis 23. There is a strong statistical relationship between program participation and prison infractions. Prisoners who are involved in prison programs are less likely to commit behavior infractions while incarcerated.

Question Eleven

Do female inmates commit more or less numerous prison infractions than male inmates, and do the females receive harsher or more lenient punishments than the males for the same infractions? What differences exist between male and female inmates in being written up for prison infractions? Do females receive harsher punishment for similar infractions compared to males?

Hypothesis 24: Female inmates are less likely to report prison infractions than are male inmates.

Hypothesis 25: Females are more likely to report receiving harsher punishments for prison infractions than are male inmates for similar prison infractions.

Measurement of Differences Between Male and Female Inmates

The central purpose of this study was to measure the differences, if any, between male and female incarcerated inmates in State and Federal Correctional Facilities. In this study, the differences between the genders was the principal variable of focus. The variable v6 (Sex) was coded for this study as gender: males (coded=0) and females (coded=1). Appendix A presents the variables and how they were coded for additional reference. Prior research has not studied the specific variables that were examined in state and federal inmates in this study.

Measuring Current Offense of Inmates

The current offenses of the female and male inmates compiled for the Survey of Inmates of State and Federal Correctional Facilities, 1997, is included in the second section in the Survey and contains 394 variables. In the survey, offenses were classified by codes ranging from 010 through 999, and for the purpose of this study, offenses were coded into 21 variables. In addition, offenses were separated by the inmates status at time of arrest or at the time they were charged. How the inmates answered certain questions determined which questions the computer prompted the interviewer. Inmates were asked if they were on parole, probation, escape or none of those, and their answer directed the next questions. After determining the inmates' status, the questions focused on the inmates' current commitment offense or offenses. Because the survey is rich in detail, several categories had to be combined for meaningful analysis. For example a current commitment offense variable was created by coding murder, manslaughter, kidnaping,

rape, sexual assault, robbery, and other violent offenses as 1and coding property offenses such as burglary, larceny, fraud, motor vehicle theft, arson, stolen property, and other property offenses as 2. Drug trafficking, drug possession, and other drug offenses were coded as 3, and weapons, obstruction of justice, traffic violations, violation of parole or probation, DWI, drunkenness/morals, and all other public order offenses were coded as 4. Missing values were coded 8 or 9.

The survey included numerous questions concerning the date of the inmates' arrest, release, and sentence. The first item addressed in this present study was whether inmates were on parole or probation at the time of their arrest. The survey collapsed status at time of current commitment offense into 4 values, on parole (coded =1), on probation (coded=2), on escape (coded=3), new court commitment (coded=4), and missing (coded=9). Univariate analyses and bivariate analyses used this collapsed variable but multivariate analyses used recoded dummy variables: parole was coded 1 and not on parole coded 0, probation was coded 1 and not on probation coded 0, escape coded 1 and not on escape coded 0, new court commitment coded 1 and not a new court commitment coded 0. Missing values were set at user missing for all four. The survey included questions on the offense or offenses the inmates were paroled for and what if any conditions of their parole or probation they violated. Inmates were also asked what new offenses, if any, they were arrested for at the time of their parole or probation. This study examined the offenses for which inmates are currently incarcerated including parole or probation violations, and looked for differences between male and female inmates.

There were a limited number of inmates whose status was escape at the time of current arrest or charge. Similar to questions for those inmates on parole and probation, the

questions directed to inmates who had escaped included the date of their escape, time spent on escape, and the date arrested after the escape. Inmates were also asked for what offense they were serving time at the time of their escape as well as any new offenses they committed while out of prison.

The third classification for inmates at time of arrest included inmates who were neither on parole, probation, or escape at time of arrest or charge. This group was categorized as new commitments for all analyses. This group included the largest number of inmates in the survey at 55%.

Measuring Criminal History of Inmates

Data on the criminal history of female and male inmates were included in the survey of inmates. One focus of this study was the comparison of prior offenses between the genders. As indicated by prior research, males possess more convictions and a higher number of prior offenses than females. Moreover, prior research suggested that males generally have more violent offenses and non-violent offenses than the females. The survey included a collapsed variable that combined offenses into the same 21 categories as are used for current offenses.

In the survey, inmates were asked about their criminal history including their ages at the time they were first arrested and their number of prior arrests. The questions included what, if any, offenses inmates were arrested for the first time and continued to their 9th time. If they had additional arrests, the questions continued until all their prior arrest and sentences were included. The survey also included questions about specific offenses including vagrancy, drunkenness, loitering, and other minor offenses. In addition, the survey included questions that asked the inmate the number of priors with categorized values. The values for number of priors were labeled

0 priors (coded=0), 1 prior (coded=1), 2 to 5 priors (coded=2), 6 to 10 priors (coded=3), and 11 or more coded=4). Missing was included (coded=9). Inmates in the survey were sentenced as a juvenile as well as an adult. The inmates were also asked questions about the length of sentence for each offense. If the inmates responded that they had prior arrests, the questions included the type of institution to which they were sentenced.

The survey also included the number of prior convictions categorized into 4 values possessed by the female and male inmates. The variable was labeled number of prior sentenced and included the values of 0 (coded=0), 1 prior (coded=1), 2 to 5 priors (coded=2), 6 to 10 priors (coded=3), and 11 or more coded=4). Missing was included (coded=9). The number of prior sentences and the types of prior offense convictions were used in the analyses.

Measuring Sentencing of Inmates

In addition to the commitment offense and criminal history, the Survey included questions about the current sentence of the female and male inmates. Prior research indicates that females are sentenced more leniently than males due to the traditional view of females as the main emotional caregiver (Chesney-Lind, 1998; Craddock, 1996; Daly, 1987; Daly, 1989; Daly & Chesney-Lind, 1988; Kruttschnett & Green, 1984; Ogle et al., 1995; Murphy & Brown, 2000; Nagel & Johnson, 1994; Steffensmeier & Allan, 1996). Respondents of the survey were asked the length of their sentence in years, months, and days for each offense they committed. Inmates were further asked questions about prior probation sentences received as a juvenile and as an adult. Questions included the date of the sentence and age of the respondent at time of sentencing. Inmates were also asked about sentences requiring restitution to the victim and any type of mandatory treatment program condition in a sentence. This study used on the sentencing questions pertaining to the commitment offenses for which inmates were incarcerated. The

survey included a continuous numeric variable for length of sentence in months that was re-coded for the purposes of this study. The value of the length of sentence in months representing life and/or death sentence[10] was re-coded from 10,000 to 2,500 months. Suspended sentences were set to a value of 0. The missing values were set as system missing. Two outliers with sentence lengths of 4,382 months and 9,380 were also coded into 2,500 months. After the coding, the compute function in SPSS[11] was used to divide the months of each value by 12 (r25/12) to use length of sentence in years. Analyses were done with and without the life and/or death sentence that resulted in substantially similar results.

Measuring Victimization of the Inmates

Prior victimization of the female and male inmates was analyzed with data in the Survey. The Survey asked the respondents numerous, specific questions about physical and sexual abuse. The questions consisted of how the abuse occurred and by whom it was inflicted. In addition, the questions asked what age the respondents were at the time of the abuse and the number of times they were abused. In addition to asking about sexual abuse, respondents were also asked if they were victims of rape or attempted rape, and, if so, was it completed. The questions asked how many times they were victimized, and if any victimization occurred during incarceration.

For this present study, the focus was on only a limited number of questions and included only those asking the participant about their prior physical or sexual abuse. Other

[10]The Life and/or death value did not allow the measurements to differentiate to which was life and which was death.

[11]Statistical Package for the Social Sciences (SPSS) is a registered trademark of SPSS, Inc. SPSS is a comprehensive integrated system for statistical data analysis. It is available on a wide variety of computers and operating systems (SPSS Reference Guide, 1990, Preface).

variables used in this study were the questions on rape and attempted rape and whether or not they were completed rapes. For the multivariate analyses, prior sexual abuse and prior physical abuse were coded into yes (coded=1) and no (coded=0) values. Most research to date has not analyzed differences or similarities in the victimization histories of females and male inmates. This study investigated differences between male and female inmate reports of physical and sexual victimization.

Measuring Communication Between Inmates And Family and Friends

The amount of prior research on the effects of the family environment on male offending is much more limited than such research of females. An important focus of this study was to measure whether or not female inmates have a higher involvement with their family and children than male inmates. The Survey (Bureau of Census, 2000) included questions asked of the participants regarding their communication with their family. In the conditions of confinement section, the questions asked the inmates first if they were allowed visits or calls and if so had they received any visit or calls within the last month.

In addition, the socioeconomic characteristics section included more specific questions that asked the inmates where and with whom they were living prior to their incarceration including whether they were living with their children. The survey included questions as to the ages of the inmates' children, the number of children, as well as where their children were residing during the inmate's incarceration. In addition, there were many questions regarding how often the male and female inmates sent or received mail and how often they received visits from their children. The survey also included numerous questions about inmates' parents and/or stepparents socioeconomic status as well as the parents or stepparents involvement with drugs and alcohol. The inmates were also asked whether or not their parents/stepparents had criminal records.

This study concentrated on the questions that asked participants about their communication with family through letters, phone calls, and visits. Also, this study included the question about whether or not the respondents have children and the types of communication the inmates have with their children. As a result of such specific questions, this study looked at the differential importance of family communication with male and female inmates. The three variables of mail from children, visits from children, and calls from children were combined into one variable and coded 0 for no communication and coded 1 for communication from children at least once a month for use in bivariate and multivariate analyses.

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Measuring Substance Abuse of Inmates

Prior research is scarce regarding substance use as a contributing factor to females violent offending. What research is available relied on the statistics compiled by the Uniform Crime Reports of the Department of Justice and consisted of only arrest rates. These rates cannot include actual drug usage but only included reported offenses of drug convictions or reported usage of offenders.

The rate of drug use in this country is decreasing but the rate of incarceration for drug offenses in increasing (Hien & Hien, 1998; McClellan, Farabee, & Crouch, 1997; Steffensmeier & Allan, 1996). Moreover, the amount of empirical evidence available on drug abuse by the female inmate is almost non-existent. This study measured the difference in substance abuse between male and female inmates. The Survey of inmates includes an entire section of drug and alcohol abuse that included over 200 variables on just alcohol and drug use and treatment. Questions in the survey separate alcohol use covering the type of alcohol, how many drinks per day, size of drinks, when the inmates drank the alcohol, and at what age they began drinking. Questions regarding substance abuse specifically cover all types of drugs and behavior while abusing drugs. The respondents were asked how many times a day they abused

substances, how many times a week, a month, where they purchased the drugs, how they took in the drugs, and how their substance abuse affected every day activities. Following these numerous questions, the respondents were asked about their treatment. Due to the limitations of this present study, only specific questions were used. This study measured the differences between the genders in alcohol/substance abuse at the time of the commitment offense, age at which the inmates began abusing alcohol and/or drugs, and the inmates reported usage of crack and cocaine. The variables were coded for use in multivariate analyses into the values of no use of alcohol or drugs at time of offense (coded=0) and using alcohol or drugs at time of offense (coded=1). For the bivariate analyses, age of inmate at time first began using drugs or alcohol was divided into categories of less than age 15 (coded=1), 16 to 30 years of age (coded=2), and over 30 years of age (coded=3). Missing was also used (coded=9).

Measuring Mental Disorders of Inmates

Equally important to this study was the analysis of differences between male and female inmates in possessing histories of mental disorders. The data from the Survey are limited on the questions relating to mental disorders and does not include diagnosis of any current disorders. Questions about mental or emotional disorders were included in the health treatment section of the survey and included only eight questions. This study focused on only those questions that asked whether the participant had ever been admitted to a mental hospital, taken prescribed mediation for a mental or emotional disorder, or whether they had received counseling or therapy prior to incarceration or during their confinement. For use in the multivariate analyses, the variables that asked whether or not the inmate had taken medication for mental disorders prior to incarceration and during incarceration were coded into new variables with values for yes (coded=1) and no (coded=0).

Measuring Program Participation from the Inmates

In the substance abuse section and the last section of the survey, the inmates were asked about their involvement in the programs offered in the correctional facility. Questions included the type of work assignments in which the inmates were involved in and out of the correctional facility, as well as the number of hours they worked and the amount of money they earned. There are numerous questions asking about the types of programs the inmates voluntarily joined including vocational training, drug or alcohol groups, self-help/personal improvement groups, religious groups, and ethnic groups. Questions also included mandatory involvement in programs such as detoxification, drug counseling, and educational awareness. For the purposes of this research, this study measured the differences between male and female inmates in their involvement in programs. Variables were used in univariate and bivariate analyses directly as coded in the survey, participation (coded=1), no participation (coded=2), and missing (coded=9). For the purposes of multivariate analyses, the values were coded into no participation (coded=0), participation (coded=1), and missing (coded=9).

Measuring Prison Infractions of Inmates

Following the questions about program involvement were the questions covering prison infractions of male and female inmates in the conditions of confinement section. The questions included whether or not the inmates have been formally charged with specific infractions such as drug violation, alcohol violation, possession of a weapon, possession of stolen property, possession of illegal substance, and the verbal and physical assault of an officer and/or an inmate. Questions regarding the number of infractions were included as well. In addition, the participants were asked specific questions about the disciplinary action that they received as a consequence of their infractions. An important focus of this study was to measure the differences in prison infractions between male and female inmates and also the differences in the disciplinary

sanctions received. This study combined the questions of specific infractions into three categories (assault infractions, alcohol/drug infractions, and possession infractions) and analyzed the difference between male and female inmates in terms of punishments received for infractions. For univariate and bivariate analyses, the original values in the survey were used, 0 infractions (coded=0), 1 infraction (coded=1), 2 through 5 infractions (coded=2), 6 through 10 infractions (coded=3), over 11 (coded=4), and missing (coded=0). The values for the number of infractions for use in multivariate analyses were coded no infractions (coded=0) and 1 or more infractions (coded=1). Other variables used in this study included ever been written up for infractions, found guilty for infractions, and disciplined for infractions. All three were coded in the same manner, yes (coded=1) and no (coded=0).

CHAPTER 4

DATA ANALYSIS

The purpose of this study was to examine the differences between female and male inmates in state and federal correctional facilities. This chapter addresses the results of the statistical tests conducted to determine what differences exist between the female and male inmates. First, descriptive statistics were examined. Second, bivariate relationship were analyzed. Third, a multivariate analysis was used to determine the effect of different independent variables on the dependent variable through the use of linear and logistic regression analysis.

Analyses for this Study

In order to analyze the different groups within this survey, the total population of all inmates was divided into subsets of male federal inmates, female federal inmates, male state inmates, female state inmates, male inmates, and female inmates. In addition, the frequencies and percentages within each subset were calculated. As directed by the hypotheses, bivariate analyses were conducted on the subsets of male and female inmates and federal and state inmates.

Statistics Used in this Study

In order to tests the hypotheses stated earlier in chapter 3, univariate analyses consisting of frequency distributions and descriptive statistics were used. In addition Pearson's chi-square test of independence[12] was used to test the relationship between binary variables. The

[12]The equation used to calculate Pearson's chi-square is X^2=Sum f^2_0/f_e -n; where f_o is cell frequency observed and f_e is cell frequency expected (Bachman & Paternoster, 1997).

odds ratio equation[13] was computed to analyze the results and used for ease of interpretation and presentation. Multivariate analyses of linear[14] and logistic regression[15] were the tests used to simultaneously control for the effect of several independent variables on the effect of the dependent variable.

Inmate Characteristics

Table 2 displays descriptive characteristics of the male and female inmates incarcerated in federal and state prison. The mean, median, standard deviation and range were computed for the age from the date of birth variable[16] and is presented as age at time of interview. The results are presented in Table 2. The oldest inmate was found to be male and the youngest to be female but the mean for both males and females was almost identical. As indicated by Table 2, inmates are committed to prison even before the age of 18. Females in federal prison are substantially older than females in state prison and all male inmates. In addition, federal inmates tend to be older regardless of gender than state inmates.

The race of the inmates is also presented in Table 2. As shown, the presence of African

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[13]The odds ratio equation with 2 categories is (n1a/n2b)/(n2a/n1b).

[14]The linear regression equation used for multivariate analysis is written: y=b0 + b1 x1 +b2 x2 +...+ bq xq + e for all 18 variables. The y stands for the dependent variable or response variable and the xs for one of each independent variable. The b terms are for the unstandardized coefficients in the results and the term e is left as is and represents the error term (Bachman & Paternoster, 1997).

[15]The logistic regression equation used for multivariate analysis is written: [p/(1-p)] = b0 + b1 x1 + b2 x2 +....+ bq xq +e for all variables in the equation. The response variable is the log of the odds because p is the probability of the event that is being predicted (Bachman & Paternoster, 1997).

[16]The survey includes questions asking the respondents the year they were born. The survey collapsed the age variable from the year of birth variable. The calculated variable was used for the analysis of age in the frequency distribution.

Americans in state prison is greater than in federal prison by over 15%. Table 2 shows that the marital status of female and male inmates at the time of their current incarceration are very similar with the exception of females in federal prison. As shown in Table 2 all inmates are more likely to report never have been married than any other marital status with male inmates being more likely to do so than female inmates.

Incident characteristics for female and male inmates are also presented in Table 2. The frequency distribution was computed for sex of victim and whether or not the female and male inmates were with someone at the time of their commitment offense (eg. had an accomplice). As shown in Table 2, male inmates are more likely than female inmates to have victimized females. In addition, state male inmates were more likely to victimize females than to victimize other males. Female inmates are also less likely than male inmates to have accomplices at the time of their offense. Moreover, state inmates are twice as likely as federal inmates to commit offenses with accomplices at the time of their current commitment offense.

Table 2

Incident Characteristics and Demographics of Male and Female Inmates Incarcerated in State and Federal Facilities

Variable		State Total	State Male	State Female	Federal Total	Federal Male	Federal Female	Total Inmates	Male Inmates	Female Inmates
Age at	Oldest	89	89	75	85	85	72	89	89	75
	Youngest	15	15	16	18	19	18	15	15	16
	Mean	33.4	33.4	34.1	37.3	37.3	37.2	33.7	33.7	34.4
	Median	32.0	32.0	33.0	36.0	36.0	36.0	33.0	33.0	34.0
	SD	9.7	9.8	8.3	10.6	10.6	10.2	9.9	9.9	8.5
Race	White	46.5	46.6	45.1	53.2	52.9	56.5	47.0	43.2	64.6
	A/American	47.8	47.7	48.7	38.8	39.3	35.4	47.1	51.5	26.5
	Other	5.4	5.4	6.0	7.1	7.1	7.9	5.5	4.9	8.3
Marital	Never	57.0	57.7	47.0	41.5	42.1	34.6	55.8	57.3	48.7
	Married	16.6	16.5	17.2	30.3	30.4	29.0	17.6	16.8	21.6
	Divorced	18.5	18.5	19.8	20.5	20.4	20.7	18.7	18.6	20.0
Incident	Not Alone	19.0	20.1	14.8	7.2	8.0	4.1	16.4	17.5	12.3
	Female Victim	15.9	16.5	13.1	3.2	3.0	3.8	14.9	15.5	12.3
	Male Victim	19.7	20.5	15.8	2.9	2.9	3.0	18.4	19.2	14.7

N=18326

Analysis of Inmates and Current Offense

In order to analyze current commitment offenses of inmates, the offenses were divided into 4 categories: violent, property, drug, and other offenses. Violent offenses included murder, manslaughter, kidnaping, rape, sexual assault, robbery, and other violent offenses[17]. Property offenses included burglary, larceny, motor vehicle theft, arson, fraud, stolen property, and other property offenses[18]. Drug offenses included drug possession, drug trafficking and other drug offenses[19]. The last category, other offenses included weapons offenses, public order offenses, and all other offenses.

Table 3 shows descriptive information for female and male inmates with violent, property and drug offenses. As indicated by Table 3, female inmates have a higher percentage of property and drug offenses than do male inmates. In fact, female inmates are twice as likely to be sentenced for drug trafficking than are male inmates. Table 3 indicates that 57.9% of female inmates in federal prison have committed a drug trafficking crime compared to 43.9% of males in federal facilities. Whereas male inmates show almost twice the percentages for violent offenses than female inmates, female inmates have a higher percentage of manslaughter commitment offenses. In addition, except for manslaughter, state male inmates are more likely to be in prison for violent offenses than females. As shown in Table 3, male inmates have a higher percentage of robbery, burglary, rape and sexual assault than do female inmates. However, female inmates have

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[17]Other violent offenses include assault, child endangerment, criminal transmission of HIV, abortion, assisted suicide, criminal trespass, gang related violence, infamous crime, reckless endangerment, tampering, trespassing (Bureau of the Census, 2000, p. 423).

[18]Other property offenses include computer crimes, pirating, plagiary, property offenses, attempt other property, conspiracy other property, escape tools, possession of burglary tools, attempt to possess burglary tools, conspiracy to possess burglary tools (Bureau of Census, 2000, p. 431).

[19]The survey does not differentiate a separate category in the offense descriptions for other drug offenses but the survey does in the value of the variable used. There are separate descriptions that could have been included (Bureau of Census, 2000, pp. 434-435).

a five percentage increase over the male inmates for property crimes especially fraud/larceny crimes. Whereas more state males are in prison for murder, there are almost twice as many state females in for voluntary manslaughter. The results in Table 3 also indicate that there are 3 times as many federal inmates as state inmates in prison for drugs. In both state and federal prisons, there is a higher percentage of females than males incarcerated for drugs.

Table 3

Percentage of Current Commitment Offenses for Male and Female Inmates Incarcerated in Federal and State Prison Facilities

Offense	State Total n=14285	Male State n=11352	Female State n=2933	Federal Total n=4041	Male Federal n=3178	Female Federal n=863	Inmate Total n=18326	Total Males n=14530	Total Females n=3796
Violent	46.7	47.9	37.7	15.2	14.6	6.8	44.2	45.4	26.1
Murder	11.6	11.8	8.5	1.5	1.4	1.8	10.8	11.7	7.8
Manslaughter	1.6	1.5	2.6	0.0	0.1	0.3	1.4	1.4	2.4
Kidnaping	1.1	1.2	0.5	0.6	0.5	0.3	1.1	1.1	0.5
Rape	2.5	2.7	0.4	0.2	0.2	--	2.3	2.5	0.4
Sexual Assault	5.9	6.2	0.9	0.6	0.6	0.1	5.5	5.8	0.8
Assault	9.2	9.4	6.8	1.9	1.3	1.0	8.6	8.8	9.3
Robbery	14.0	14.4	7.1	10.3	9.8	3.6	13.6	14.4	6.1
Other violent	0.8	0.7	1.2	0.6	0.6	0.8	0.7	0.6	1.2
Property	21.7	21.4	23.1	6.3	6.7	12.3	20.6	20.2	25.1
Burglary	10.6	10.9	5.1	0.3	0.6	0.1	9.8	13.2	4.7
Fraud/Larceny	4.8	6.1	18.4	4.9	5.3	11.0	6.7	8.6	17.8
other property	0.5	0.5	0.4	0.1	0.1	0.2	0.4	0.9	0.4
Drug	20.4	19.5	33.9	61.8	61.1	71.0	23.6	22.8	37.2
Drug Traffic	11.1	10.7	18.3	45.0	43.9	57.9	13.8	10.1	21.8

Offense	State Total n=14285	Male State n=11352	Female State n=2933	Federal Total n=4041	Male Federal n=3178	Female Federal n=863	Inmate Total n=18326	Total Males n=14530	Total Females n=3796
Drug Poss.	8.7	8.3	14.4	11.3	11.5	9.6	8.9	8.2	14.0
Other Drug	0.6	0.5	1.2	5.5	5.7	3.5	0.9	0.9	1.4

N=18326

-- no results

A comparison of male and female inmates likelihood of committing drug, property and violent offenses is presented in Table 4. The results of Pearson s chi square show a significant relationship between gender and current violent, property and drug commitment offenses; the odds ratio (2.34) indicates that males are over twice as likely as female inmates to commit a violent offense. In contrast, females are only 30% (odds ratio=1.32) more likely than males to commit property offenses but twice as likely as male inmates to commit drug offenses (odds ratio=2.02). The results presented in Table 4 also show that state inmates are more than 5 times as likely (odds ratio:5.1) to be serving their present commitment offense on a violent offense and are almost 4 times as likely (odds ratio:3.87) to be committed for property offenses than are federal inmates. However, consistent with the prior research, federal inmates are more than 8 times as likely (odds ratio:8.59) to report drug offenses for their current commitment offense than are state inmates. The findings for type of prison and offenses indicates a statistical significant relationship between the two variables.

Table 4

Comparison of Violent, Property and Drug Offenses of Female and Male Inmates and State and Federal Inmates (Percentages shown)

Offense	State n=14285	Federal n=4041	X^2 *(SE)*	Male n=17163	Female n=1163	X^2 *(SE)*
Violent	46.7	14.6	544.89(.000)	45.4	26.1	163.71(.000)
Property	21.7	6.7	181.48(.000)	20.2	25.1	15.89(.000)
Drug	20.4	61.8	1248.24(.000)	22.7	37.2	127.50(.000)

N=18326; df=1; p<.0005

Analysis of Inmates and Sentencing

The sentencing information for the inmates is presented in two different areas in the survey. For this analysis, a combined variable was used that calculated total months of the sentences. The months were then computed into a new variable of years for easier interpretation. A new variable was calculated by using the compute procedure in SPSS[20] by dividing the length of sentence in months by 12 (v7/12). As shown in Table 5, female inmates were almost 20% more likely to be sentenced to 5 years or less than male inmates. Male inmates received a higher percentage of sentences for 5-10 years, 10-20 years, and over 30 years. The percentages show a larger difference between males and females as the sentence length increases with males almost twice as likely to receive sentences over 20 years. Moreover, for sentences of over 30 years, the male inmates show almost twice the percentage of females. The mean, median, mode and standard deviation were also calculated for length of sentence and are presented in table 5. The mean and standard deviation are high due to outliers and variability. However, the mean of 26 years suggests that males routinely receive longer sentences than females (mean=5 years) and that state inmates (mean =26.8 years) receive longer sentences than federal inmates (mean =15.3 years). The median of 10 years indicates that male inmates receive twice the length of sentence as female inmates at 5 years. Females in federal prison receive a sentence of 10 years as often as male inmates in state prison and twice the odds of federal male inmates. The mode indicates that the sentence received the most by males (mode= 10 years) is three times the sentence most female inmates (mode=3 years) received.

The sentencing variable showing length of sentence in years was coded from the variable sentence length in months (see Appendix A). Descriptive analysis was conducted on the new variable and the percentiles for the length of sentence for male and female inmates are

[20]Statistical Package for the Social Sciences (SPSS) is a comprehensive integrated system for statistical data analysis (SPSS Reference Guide, 1990, Preface).

presented in Table 5. The results indicate that 75% or fewer state males received sentences of 20 years whereas 75% or fewer of state females received a sentence length of 11.5 years. The variable for length in years was further coded into 2 values to represent sentence length less than 10 years (coded=0) and more than 10 years (coded=1) for chi-square test. The results indicate that there is a statistically significant difference found for gender and sentences of more than 10 years. The results indicate that 45.6% of males received sentences over 10 years whereas 28.8% of female inmates do. Moreover the odds ratio of 2.06 indicates that male inmates are more than twice as likely as female inmates to receive a sentence of more than 10 years. The percentages for state and federal inmates indicate that 45% of state inmates received a sentence of over 10 years compared to 38.9% of federal inmates. The relationship is statistically significant and indicates that state inmates are 28% more likely than federal inmates to received a sentence length over 10 years.

Table 5

Percentages of Length of Total Sentences Serving for Male and Female Inmates at Time of Current Commitment

Sentence In years	State Total n=14285	State Male n=11352	State Female n=2933	Federal Total n=4041	Federal Male n=3178	Federal Female n=863	Inmate Total n=18326	Total Males n=14530	Total Females n=3796
1-5 years	33.6	38.0	50.9	32.7	31.2	38.7	33.5	32.4	51.1
5.1-10	21.4	21.4	21.5	28.3	28.9	26.1	21.9	22.1	20.1
10.1-20	18.5	19.6	13.4	24.2	25.0	21.1	19.0	19.4	13.2
20.1-30	8.2	9.1	4.1	6.8	6.7	7.3	8.1	8.4	4.8
over 30	18.2	19.9	10.2	7.8	8.1	6.8	17.4	17.9	10.8
25%	4 yrs	4 yrs	2.5 yrs	3.4 yrs	5 yrs	2.5 yrs	4 yrs	4 yrs	2 yrs
50%	9 yrs	10 yrs	5 yrs	6.6 yrs	8.3 yrs	5 yrs	10 yrs	10 yrs	5 yrs
75%	20 yrs	20 yrs	11.5 yrs	12.9 yrs	15 yrs	10 yrs	20 yrs	20 yrs	10 yrs
Mean	26.8 yrs	29.6 yrs	16.1 yrs	15.3 yrs	17.4 yrs	10.3 yrs	27.8 yrs	26 yrs	5 yrs
Median	9 yrs	10 yrs	5 yrs	6.6 yrs	8.8 yrs	5 yrs	10 yrs	10 yrs	5 yrs
Mode	10 yrs	10 yrs	3 yrs	5 yrs	5 yrs	10 yrs	10 yrs	10 yrs	3 yrs
SD	52.9	55.5	39.7	34.9	36.9	26.8	53.7	51.9	38.3

N=18326

Table 6 shows the results of linear regression to predict the length of sentence for female and male inmates. As explained earlier in Chapter 3, the length of sentence in months variable was coded into years. The new variable was used in the linear regression analysis as the dependent variable. The model used the dependent variable with all the values as coded for years of sentence. From the unstandardized regression coefficients, it appears that the murder commitment offense is most strongly related to sentence length indicating that inmates incarcerated for murder are likely to receive over 86 years more than inmates committed on sentences other than murder. The second strongest predictor of sentence length is gender, indicating that females receive sentences of 10 years less than male inmates. The probability of a longer sentence increases with inmates who lived with their children prior to incarceration and if the inmates had an accomplice. The probability also increases for older inmates as indicated by the results for age. In addition, inmates' family incarceration history increases the probability of a longer sentence. The results also show that state inmates are more likely to receive longer sentences than federal inmates and inmates abused prior to incarceration receive longer sentences than inmates not abused. The results also indicate that the number or prior convictions and a conviction of manslaughter or drug trafficking are not good predictors of sentence length after simultaneously controlling for other independent variables.

Table 6
Results of Linear Regression on Length of Sentence for Female and Male Inmates

Variable	UC	t*(SE)*
Female Coded 1 Male Coded 0	-10.419	-11.932(.000)***
Murder Commitment Offense (coded 1)	86.808	74.308(.000)***
White Coded 1 or Not White Coded 0	-4.301	-6.614(.000)***
Has Children Coded 1 No Children Coded 0	-3.352	-4200(.000)***
Current Commitment Status (Not New Coded 1)	-2.157	-3.162(.002)**

Child Living With You Coded 1	2.187	2.856(.004)**
Someone Else There at Time of Offense (Coded 1)	7.251	7.984(.000*)**
Type of Prison (Coded Federal 0, State 1)	4.323	5.272(.000)***
Age	.593	17.292(.000)***
Physically or Sexually Abused Coded 1	2.380	2.816(.005)**
Under Influence of Drugs at Offense (Coded 1)	.782	1.111(.266)
Married Coded 1 or Not Married Coded 0	-.449	-.712(.477)
Manslaughter Commitment Offense (Coded 1)	-1.814	-.681(.496)
Drug Trafficking Offense (Coded 1)	-.308	-.342(.732)
Taking Meds For Mental Disorders Prior (Coded 1)	1.570	1.904(.057)
Family Member has Incarceration History (Coded 1)	1.844	2.813(.005)**
Number of Prior Times Sentenced	2.977E-05	.343(.732)
Constant	-3.095	-1.883(.060)
R^2		.310
F(df)		492.699(16)

*p<.05; **p<.005; ***p<..0001

Analysis of Inmates and Prior Criminal History

Tables 7 and 8 present the results of the frequency distribution for prior prison and probation sentences for male and female inmates. As indicated, male inmates show a higher percentage of prior prison sentences than female inmates. Female inmates are more likely to have no priors offenses, either prison or probation, compared to male inmates. Moreover, federal female inmates are less likely than male federal inmates to have never been sentenced to probation. Over two thirds of the federal female inmates are first offenders, and this finding is more than twice reported for federal male inmates. In addition, state female offenders report less extensive prior sentences compared to the state male inmates. The percentages in table 7, indicate that the male

inmates are more likely than female inmates to have multiple probation sentences. Table 7 also indicates that state inmates have higher percentages of priors than federal inmates. Table 8, immediately following Table 7 indicates that male inmates outnumber female inmates in all prior offenses except for drug trafficking. For both federal and state female inmates are more likely to have a prior record for drug trafficking than are male inmates. Female inmates are also more likely than are male inmates to report they are first offenders.

Table 7

Percentage of the Number of Prior Sentences for Female and Male Inmates

Type of Prior Sentence	# of Sent	State Total n=14285	State Male n=11352	State Female n=2933	Federal Total n=4041	Federal Male n=3178	Federal Female n=863	Inmate Total n=18326	Total Male n=14530	Total Female n=3796
Total of All	0	24.3	23.6	34.8	39.1	36.9	66.8	24.4	24.6	37.7
	1	16.5	16.5	17.1	17.1	17.3	13.9	16.6	16.6	16.8
	2	16.1	16.1	15.2	14.0	14.6	7.3	15.9	16.0	14.5
	3 - 5	24.4	24.8	19.0	18.8	19.6	7.7	24.0	24.4	18.0
	6 - 10	11.9	12.1	7.7	7.6	8.0	2.5	11.5	11.8	7.3
	11 +	5.9	6.0	4.8	2.7	2.7	1.4	5.7	5.8	4.5
Incarceration	0	44.7	43.8	57.6	60.0	58.2	82.9	45.8	44.9	59.9
	1	21.3	21.5	17.3	17.4	18.1	7.9	21.0	21.2	16.5
	2	9.7	9.9	7.4	7.2	7.5	3.3	9.5	9.7	7.0
	3-5	14.7	15.0	9.3	9.9	10.4	3.4	14.3	14.7	8.8
	6-10	5.8	5.9	4.5	3.9	4.1	0.9	6.7	5.8	4.2
	11+	3.3	3.4	2.8	1.2	1.2	1.1	3.2	3.2	2.7
Probation	0	35.9	35.3	44.2	48.6	46.8	71.6	36.9	36.2	46.7
	1	30.1	30.3	27.2	26.5	27.3	16.8	29.8	30.0	26.3
	2	17.0	17.1	14.4	12.9	13.4	6.7	16.7	16.8	13.8

Type of Prior Sentence	# of Sent	State Total n=14285	State Male n=11352	State Female n=2933	Federal Total n=4041	Federal Male n=3178	Federal Female n=863	Inmate Total n=18326	Total Male n=14530	Total Female n=3796
	3-5	13.7	13.9	11.8	9.5	9.9	4.1	13.4	13.6	11.1
	6-10	2.5	2.5	1.4	1.9	2.0	0.5	2.4	2.5	1.3
	11+	0.4	0.4	0.5	0.3	0.3	0.3	0.4	0.4	0.5

N=18326

Table 8

Percentage of Individual Prior Offenses Committed for Male and Female Inmates in Federal and State Prison Facilities

Offense	State Total n=14285	Male Total n=11352	Female Total n=2933	Federal Total n=4041	Male Federal n=3178	Female Federal n=863	Total Inmates n=18326	Total Males n=14530	Total Females n=3796
Murder	1.1	1.1	0.7	0.8	0.9	0.1	1.0	1.1	0.6
Manslaughter	0.4	0.4	0.3	0.4	0.5	0.1	0.4	0.5	0.2
Kidnaping	0.4	0.4	0.3	0.2	0.3	0.0	0.5	0.6	0.0
Rape	0.5	0.7	0.0	0.2	0.3	0.0	0.5	0.6	0.0
Sexual Assault	0.7	0.9	0.0	0.1	0.1	0.0	0.6	0.7	0.0
Assault	7.7	8.5	4.7	5.5	6.5	1.7	7.2	8.1	4.0
Robbery	7.1	8.0	3.6	6.6	8.1	0.0	7.0	8.0	3.1
Burglary	11.2	13.1	3.5	5.7	7.1	0.7	10.0	11.8	2.8
Fraud/Larceny	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Drug Trafficking	9.7	7.8	17.2	7.3	6.7	9.6	9.2	7.6	15.5
Drug Poss.	6.1	5.7	7.6	6.9	7.8	3.6	6.3	6.2	6.7
Other violent	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.0
other property	2.4	2.8	0.8	2.4	2.8	0.7	2.4	2.8	0.8
no offense	44.4	41.	55.1	56.5	50.8	77.5	47.0	43.6	60.2
N=18326									

The results of Pearson's chi-square are shown in Table 9 for the relationship between prior offenses and male and female inmates. The statistical significance found between gender and all prior offenses indicates that gender and prior offenses are not independent events of one another. The analysis also indicates a statistically significant relationship between gender and prior prison sentences. The frequencies indicate a higher percentage of priors for males by only a small percent but the odds ratio equation shows that males are 73% more likely to have prior prison sentences than female inmates. The relationship between gender and no prior sentences is also statistically significant with females being 83% less likely than male inmates to report prior sentences. State inmates are more likely than federal inmates to report prior sentences to probation (odds ratio: 0.592), prior prison sentences (odds ratio: 0.59), and 49% more likely to report all priors. In addition, federal inmates are over twice as likely (odds ratio: 2.011) to have no prior sentences than are state inmates. There is a significant relationship between prior violent offenses and gender with males being more than 3 times a likely (odds ratio: 3.08) as females to have committed past violent offenses. State inmates also have a higher percentage of violent offenses than federal inmates and the results of the odds ratio (2.91) show that state inmates are almost 3 times more likely to have committed prior violent offenses than federal inmates.

Table 9

Comparison of Prior Sentence for Female and Male Inmates

Priors	State n=14285	Federal n=4041	*X2(SE)*	Male n=17163	Females n=1163	*X2(SE)*
Probation	64.1	51.4	136.69(.000)	50.6	48.3	139.73(.122)
Prison	55.3	40.0	133.76(.000)	51.4	37.8	189.74(.000)
All Priors	75.7	61.0	195.67(.000)	68.2	58.4	119.89(.000)
No Priors	24.0	38.8	153.429.000	24.8	37.7	97.794(.000)
Violent Offenses	46.6	23.0	310.98(.000)	46.3	21.9	268.74(.000)

N=18326; p<.05; df=1

Analysis of Inmates and Family Incarceration History

The percentages of family incarceration history for male and female inmates is presented in Table 10. As shown in Table 10, female inmates have a higher percentage of reporting their mother, sister, child, spouse, brother, sister, and any immediate family member has a history of incarceration. The most likely family member to have been incarcerated for both male and female inmates is the brother. Table 10 shows that over one third of both male and female inmates reported having brothers with a history of incarceration. The smallest percentage of any family member incarcerated for male and female inmates is that of the child. However, both state and federal females are twice as likely as state and federal males to report a sister with a criminal record and state and federal females are more than twice as likely to report a child with a criminal record than are state and federal males.

Table 10

The Relationship Between Male and Female Inmates with Parents and Family Criminal History (in Percentages)

Criminal History	State Total n=14285	Male State n=11352	Female State n=2933	Federal Total n=4041	Male Federal n=3178	Female Federal n=863	Inmate Total n=18326	Total Males n=14530	Total Females n=3796
Parents/Stepparents	18.0	17.9	19.9	11.1	11.1	11.5	17.5	17.3	19.1
Mother	4.4	4.2	7.1	2.9	2.9	3.5	4.3	4.2	6.8
Father	15.3	15.3	15.1	9.3	9.5	9.0	14.8	14.9	14.5
Spouse	1.4	1.0	6.9	1.6	1.1	8.6	1.4	1.0	7.0
Brother	34.2	34.0	37.6	27.7	27.9	25.9	33.7	33.5	36.5
Sister	6.2	5.9	11.9	4.0	3.6	8.1	6.1	5.7	11.6
Child	2.3	2.1	5.8	3.1	2.8	7.3	2.4	2.4	5.9
Any Immediate Family	46.9	46.3	55.2	37.9	37.5	43.7	45.9	45.7	54.2

N=18326

The relationship between family incarceration history and female and male inmates is shown in Table 11. The relationship between gender and parents/stepparents criminal history is not statistically significant. The results between gender and brother's incarceration history was not found to be significant either. However, the results of Pearson's chi-square did find a statistically significant relationship between gender and any family member indicating that female inmates are more likely (odds ratio:1.41) to have any family member with a criminal history than are male inmates. The relationship between a mother's incarceration history and gender is statistically significant indicating that females are 69% more likely to have a mother with a incarceration history than are male inmates. In addition, females inmates are also over twice as likely as male inmates to have a sister with a history of incarceration and 75% more likely to have a spouse with a criminal history. Female inmates are twice as likely to have sisters and children with an incarceration history than are male inmates.

Table 11

Comparison of Family's Incarceration History for Female and Male Inmates by Family's Incarceration History

Criminal History	State n=14285	Federal n=4041	X^2*(SE)*	Male n=17163	Female n=1163	X^2*(SE)*
Parents	18.0	11.1	46.79(.000)	17.3	19.1	5.48(.241)
Any Family	46.9	37.9	42.98(.000)	46.8	54.2	31.68(.000)
Sister	6.2	3.9	12.986(.002)	5.7	11.5	65.68(.000)
Brother	34.2	27.7	25.07(.000)	33.5	36.5	4.75(.093)
Child	2.3	3.1	4.383(.110)	2.2	5.9	66.68(.000)
Mother	4.4	2.9	7.445(.024)	4.1	16.8	18.934(.000)
Father	15.3	9.3	37.748(.000)	14.9	14.5	.136(.984)
Spouse	1.4	1.6	1.759(.415)	1.0	7.1	291.89(.000)

N=18326; $p<.05$; df=1

Analysis of Inmates and Communication

Table 12 presents the percentages of the inmate s communication with family, children, and friends as measured by phone calls, letters and visits for female and male inmates. The values of each variable were coded from never into no contact (coded=0) and daily or almost daily, at least once a week, at least once a month, less than once a month into contact (coded=1). Also presented in Table 11 are the results of the frequency distribution for whether or not the inmates have children and, if so, whether or not the child was living with the inmate prior to their current incarceration. As seen in Table 12, over two thirds of all female inmates have children and over half of the female inmates were living with them prior to their incarceration. The results for the male inmates show almost a 15% lower percentage than the female inmates for having children and less than half the percentage of female inmates for living with their children prior to incarceration. Female inmates are more likely than male inmates to receive mail, phone calls, and visits from children. Male inmates report more communication by way of phone and visits with anyone outside the prison including children, excluding lawyers. The results in table 12 showing the high percentages for living with children prior to incarceration also suggest that federal inmates maybe attached to children and more attached to others than state inmates. However, federal prisoners are no more likely to get visits than state inmates.

Table 12

Frequency Distribution of Male and Female Inmates and the Communication with Children and Others

Communication	State Total n=14285	Male State n=11352	Female State n=2933	Federal Total n=4041	Male Federal n=3178	Female Federal n=863	Inmate Total n=18326	Total Males n=14530	Total Females n=3796
Has Children	65.6	64.7	79.3	76.8	76.5	80.4	66.5	65.6	79.4
Living w/child	26.7	25.6	44.6	39.0	38.0	52.6	27.7	26.5	54.7
Calls Children	36.0	34.9	52.1	62.6	62.1	69.5	38.1	53.7	54.8
Mail Children	42.9	41.8	60.4	62.4	60.3	68.5	44.4	43.3	61.1
Visits Children	24.7	24.2	31.5	32.7	38.6	39.9	25.8	25.3	32.9
Calls Anyone	53.5	53.6	51.6	74.3	74.3	70.8	55.1	55.2	53.4
Visits anyone	32.1	32.0	33.3	33.0	33.0	28.4	32.4	32.2	31.2

N=18326

As shown in Table 13, the relationship between gender and communication from family and friends is statistically significant. The difference in the percentages between male and female inmates are minimal even though all the relationships are statistical significant. The odds ratio equation showed that females are less than half (0.44) as likely as males to receive visits from children but twice as likely to receive mail (odds ratio=2.06) and calls (odds ratio: 1.97) from children. The analysis of whether or not inmates have children is an important variable to consider when analyzing the amount of communication for male and female inmates from children. The result of the odds ratio equation found that females are over twice as likely (2.02) to have children as the male inmates and more than twice as likely (odds ratio: 2.30) to have lived with children prior to their incarceration. The survey included in the section on conditions of confinement questions asking if inmates had received any visits from anyone outside of the prison community.

Table 13
Comparison of Communication with Children and Any One for Female and Male Inmates

	Male Inmate n=17163	Female Inmates n=1163	*X2(SE)*
Calls from Children	37.0	53.7	128.124(.000)
Mail from Children	43.3	61.1	140.135(.000)
Visits from Children	25.3	32.9	32.223(.000)
Child with You	26.5	45.4	192.949(.000)
Calls	55.2	53.4	.80(.644)
Visits from Anyone	32.2	34.5	2.841(.092)

n=18326; df=1; <.05

Table 14 shows the results of the logistic regression model for the odds ratio of

predicting communication with children through mail, phone calls, and personal visits. The three variables showing communication with children were coded into one variable (no communication=0, communication=1). As shown in Table 14, the odds that an inmate will receive communication from children decreases with whether an inmate lived with children prior to incarceration. The age of the inmate and the length of sentence do not predict communication but the race of the inmate does. The results for gender indicate that females are 47% less likely to receive communication than are male inmates and this finding contradicts the bivariate analysis. White inmates have a 28% higher probability of receiving communication than inmates of other races. The probability that an inmate will receive communication decreases by 32% with a drug commitment offense and increases by 16% for a murder commitment offense. Furthermore, inmates taking medication for mental disorders prescribed by a physician are 27% more likely to receive communication than those not on medication. Inmates written up for discipline infractions in prison have an increased probability of having communication from children.

Table 14
Odds Ratio of Predicting Communication from Children for Female and Male Inmates

Variables	UC(SE)	Odds Ratio
Abused Physically or Sexually Coded 1	.275(.000)***	1.317
Married Coded 1 or Not Coded 0	.011(.740)	1.011
Child with You (Coded 1)	-1.899(.000)***	.150
Age	.024(.000)***	1.024
Female (Coded 1)	-.715(.000)***	.489
Medicine for Mental Disorders (Coded 1)	.246(.000)***	1.279
Drug Traffic Offense (Coded 1)	-.385(.000)***	.681
Murder Commitment Offense (Coded 1)	.147(.017)*	1.159

Sentence Length in Years	.000(.000)***	1.000
White (Coded 1 Nonwhite Coded 0)	.388(.000)***	1.474
Time Served to Date In Prison[21]	.000(.335)	1.000
Ever Written up for Infractions Coded 1	.150(.000)***	1.162
New Commitment Status (Coded 0)	.014(.704)	1.014
Constant	-.063(.000)***	1.317
Nagelkerke (pseudo) R^2= .265		
Chi-Square (df) = 4188.859(14)		
p value= .005		

N=18326 *p<.05, **p<.005, ***p<..0001

Analysis of Inmates and Prior Victimization

Table 15 shows the percentages for physical and sexual abuse of male and female inmates. The survey combined the numerous variables requesting information of the inmates about prior abuse into three variables of physical abuse, sexual abuse, and both sexual and physical abuse. The percentages shown in Table 15 indicate that female inmates have a much higher risk than male inmates of both sexual and physical abuse prior to their current incarceration. The percentage of male and female inmates reporting physical abuse is higher than that for sexual abuse in all subsamples, over a 30% difference. Females in state prison are more likely than federal female inmates to report prior abuse. In addition, males in state prison are more likely than males in federal prison to report a history of victimization. In order to extend the analysis further, chi-square was used to test for the relationship between male and female inmates and sexual and physical abuse.

[21]Length of time served in prison to date of interview was entered into the model as a control variable.

Table 15

Percentage of Physical and Sexual Abuse for Female and Male Inmates

	State Total	State Males	State Female	Federal Total	Federal Males	Federal Female	Total Inmates	Total Male	Total Female
Physical	15.3	13.2	45.9	7.8	5.8	33.2	14.7	12.7	44.8
Sexual	7.8	5.7	38.2	3.6	2.1	23.3	7.5	5.5	36.9
Both	4.5	3.0	27.7	10.7	1.0	15.7	4.4	2.8	26.6

N=18326

Table 16 presents a comparison of abuse between male and female inmates by using chi-square. Significance was found between gender and prior abuse. Female inmates and female inmates were found to be more than five times (odds ratio:5.6) as likely as male inmates to report prior physical abuse. Moreover, female inmates are more than 10 times (odds ratio:10.1) as likely to report prior sexual abuse than are males inmates.

Table 16

Comparison of Prior Physical and Sexual Abuse for Female and Male Inmates

Abuse	Male n=17163	Female n=1163	X^2(SE)
Physical	12.7	44.8	900.328(.000)
Sexual	5.5	36.9	1568.240(.000)

N=18326; p<.05; df=1

Analysis of Inmates and Alcohol/Substance Abuse and Treatment

Table 17 displays descriptive statistics for the age that female and male inmates first reported using drugs and alcohol. The median age for beginning using drugs and consuming alcohol is almost identical for male and female inmates but the mean age for first drinking

alcohol and abusing drugs is slightly higher for females than it is for males. The mean was found to be similar for both male and female inmates indicating that male and female inmates began using drugs and alcohol at the same time in their lives. The odds ratio equation was used to show that male inmates are just as likely as female inmates (odds ratio=1.00) to begin using drugs or drinking alcohol before the age of 15. Also the extreme low and high values increase the standard deviation indicating that the mean is not a good measure of central tendency. The median is better than the mean for analyzing the age that inmates began abusing drugs with the median being 16 for both female and male inmates. The median is also a better measure for the age that inmates began drinking alcohol and the median was 15 for males and 16 for females.

Table 17

Descriptive Characteristics of the Ages that Male and Female Inmates and Federal and State Inmates Began using Drugs or Drinking Alcohol

	Began using Drugs				Began Drinking Alcohol			
	Mean	*Median*	*Range*	*SD*	*Mean*	*Median*	*Range*	*SD*
Gender								
Male	16.48	16.00	67	5.56	15.46	15.00	67	3.77
Female	18.14	16.00	47	6.17	16.72	16.00	89	5.07
Total	16.80	16.00	67	5.72	15.70	15.96	89	4.08
Prison								
Federal	18.16	16.95	67	6.69	16.40	16.00	89	4.24
State	16.47	16.00	55	5.41	15.53	15.00	41	4.02

N=18326

Table 18 shows a more specific analysis of age divided among the sub-samples of male, female, state, and federal inmates. As the results indicate, a higher percentage of male inmates than female inmates began drinking alcohol before the age of 15. The percentages are very similar for the ages that male and female inmates began using drugs with the female inmates only showing a .3% higher percentage for beginning under the age 15. The other

percentages are almost identical for beginning drugs for both male and female inmates. However, the percentages indicate that state inmates were more likely to have begun drinking and using drugs before the age of 15 than federal inmates. The percentages are almost identical for beginning alcohol for the groups of ages 16-30 and over 30 for both male and female inmates.

Table 18

Percentages from the Frequency Distribution of the Age That Male and Female Inmates Began Using Drugs and Drinking Alcohol

Age	State Total	Male State	Female State	Federal Total	Male Federal	Female Federal	Inmate Total	Total Male	Total Female
Drugs									
<15	39.1	39.4	39.1	25.5	25.2	29.4	38.0	38.0	38.3
16-30	40.2	42.7	40.2	38.9	39.0	38.4	40.1	40.1	40.1
30+	2.2	0.5	2.9	4.2	4.3	2.9	2.4	2.3	2.9
Alcohol									
<15	39.4	39.4	38.1	26.9	26.6	30.3	36.5	40.1	37.4
16-30	42.7	42.7	42.4	52.5	52.7	50.0	43.4	43.5	43.1
30+	0.5	0.5	0.7	1.0	1.0	0.5	0.6	0.5	0.7

N=18326

Table 19 shows the percentages of male and female inmates under the influence of drugs and alcohol at the time of their commitment offense. As shown in the Table, the percentage of male inmates is slightly higher than female inmates for using alcohol at the time of offense, but both are below 40%. Male inmates also report using crack or cocaine at time of offense more so than female inmates, but all percentages are below 10%. However, the percentage for female inmates are higher for using drugs at the time of the offense than for male inmates. The percentages are very similar for using alcohol and drugs together at the time of offense for the inmates, but females have a slightly higher percentage. In fact the

frequency distribution indicates that about half of all female and male inmates were under the influence of drugs and alcohol at the time of offense.

Table 19

Percentages for the Use of Drugs and Alcohol at the Time of the Current Commitment Offense for Male and Female Inmates

Variable	State Total	State Male	State Female	Federal Total	Federal Males	Federal Female	Total Inmate	Total Male	Total Female
Alcohol	36.5	37.2	33.4	20.0	21.7	17.9	35.3	35.8	27.5
Drugs	31.9	31.5	33.4	20.5	22.5	22.6	31.2	30.7	37.7
Alcohol Drugs	51.3	51.2	52.3	31.3	33.4	29.3	49.9	49.7	50.8
Crack	8.3	8.5	7.2	3.2	3.5	2.2	7.9	8.1	6.7
Cocaine	7.4	7.4	7.3	6.4	6.7	5.4	7.3	7.4	7.2
Parents Abused	32.3	31.0	37.1	21.9	20.0	25.0	30.0	28.8	34.5

N=18326

Table 20 shows the results of the test for significance between gender and under the influence of drugs or alcohol at the time of offense. Female inmates are more likely to abuse alcohol and drugs together at the time of offense, but there is no statistical significance between gender and substance abuse. However, the results do indicate a statistically significant relationship between gender and alcohol use at the time of the offense and between gender and drug use at the time of the offense. The results of the odds ratio equations found that male inmates are 46% more likely to be drinking at the time of their offense. The odds that females abused drugs at the time of the offense are 36% higher than for male inmates.

Table 20

Comparison of Reporting being Under the Influence of Alcohol of Drugs at the Time of Offense for Female and Male Inmates

	Male n=17163	Female n=1163	*X2(SE)*
Alcohol	35.8	27.5	32.370(.000)
Drugs	30.7	37.7	24.663(.000)
Alcohol/Drugs	49.9	50.3	26.969(.893)

N=18326; p<.05; df=1

Analysis of Inmates and Mental Health Treatment

Table 21 presents the frequency distribution for medications prescribed by a physician, counseling or therapy received, and other mental health services that the inmates received prior to incarceration and since their admission on their current commitment offense. As can be seen in Table 21, the percentages for female inmates are almost twice as high for taking medication prior to commitment, and over 10% higher for female inmates than male inmates for receiving counseling and therapy prior to their current commitment. Female inmates received miscellaneous mental health services prior to incarceration and during their present incarceration more so than male inmates. The results of the univariate analysis show that percentage for female inmates are also over twice the percentages for male inmates on taking medication for mental disorders during their current incarceration. The percentages of females receiving counseling during their present incarceration are almost double the results for the male inmates.

Table 21

Percentages for Medication and Treatment for Mental Disorders as Prescribed by a Physician of Male and Female Inmates

Variable	State Total	State Male	State Female	Federal Total	Federal Male	Federal Female	Total Inmate	Male Inmate	Female Inmate
Prior to Incarceration									
Taken Medication	18.7	17.6	34.2	10.8	9.7	25.7	18.0	17.0	33.4
Counsel or Therapy	21.6	20.9	32.1	11.5	10.4	25.2	21.8	20.1	31.5
Other Mental Services	3.3	3.1	5.8	1.5	1.4	3.5	3.3	3.0	5.6
During Incarceration									
Taken Medication	12.1	11.4	22.7	7.1	6.2	19.5	11.7	11.0	22.4
Counsel or therapy	12.1	11.6	20.2	6.8	5.9	18.6	11.7	11.2	20.0
Other Mental Services	1.8	1.7	2.2	0.9	0.6	2.2	1.7	1.6	2.2

N=18326

Table 22 shows the results of the test for significance between mental disorders and gender of inmate. Female inmates are almost twice as likely (odds ratio:1.92) as male inmates to have taken medication during their current incarceration for mental disorders and to receive counseling or therapy during their present incarceration. Table 22 shows that female inmates are more likely (odds ratio: 1.10) to have taken physician prescribed medication during their current incarceration. Table 22 also shows that female inmates are more likely to have received counseling and therapy since their admission to prison (odds ratio: 1.38) and prior to their current incarceration (odds ratio: 1.43) females are also more likely than male

inmates to have received other mental health services[22] prior to incarceration (odds ratio: 1.14). Moreover, the results of the chi-square analysis between male and female inmates and mental disorders indicate a statistically significant relationship. Thus, this finding confirms the results found by Teplin et al.'s (1996) recent study.

Table 22
Comparison of Mental Disorders for Female and Male Inmates

	Male Inmates n=17163	Female Inmates n=1163	*X2(SE)*
Medication	17.0	33.4	201.172(.000)
Counsel/Therapy	20.1	31.5	89.796(.000)
Other Mental	3.0	5.6	26.032(.000)
Medication during	11.0	22.4	199.027(.000)
Counsel/Therapy	11.2	20.1	99.549(.000)
Other Services	1.6	2.2	247.704(.000)

N=18326; p<.05; df=1

Analysis of Inmates and Prison Program Participation

The frequencies and percentages of the different programs in which male and female inmates participated during their incarceration is presented in Table 23. Female inmates and males inmates have similar participation rates in prison programs with the percentages for female inmates resulting in 6% higher number for drug treatment programs, 4% higher for drug programs, and over 8% for religious programs. The results for alcohol and drug

[22]The survey include only a limited number of questions for the inmates on mental health and mental health services. One of the questions asked the inmates if they had participated in any other mental health services beside counseling and therapy, but the question was not specific to what kind of services. There were only 8 questions on mental health in the health section of the survey.

treatment programs indicate that female have just slightly higher involvement. Male inmates have a higher participation percentage by 2% for peer counseling groups, 4% for alcohol treatment, and 6% higher numbers for vocational and educational programs. Male inmates also have higher percentages for alcohol and drug awareness programs than female inmates even though the next to the lowest attendance was reported for drug and alcohol awareness programs. Vocational and educational programs indicate the largest percentage of participation, and religious groups show the second highest percentage of participation for both male and female inmates.

Table 23

Percentage of Participation in Programs by Female and Male Inmates

Program	State Total	State Male	State Female	Federal Total	Federal Male	Federal Female	Total Inmate	Total Male	Total Female
Religious	30.9	30.4	38.9	38.0	31.2	31.7	31.0	30.5	38.8
Other Relig	32.2	31.4	43.0	42.0	30.6	31.5	32.1	31.4	42.9
Personal Peer	23.0	22.6	24.8	11.4	11.3	11.5	22.1	22.2	20.7
Vocational/ Educational	51.5	52.0	49.3	54.3	53.7	56.7	51.7	52.1	46.1
Alcohol or Drug	27.2	27.1	27.8	22.8	22.4	21.0	26.8	26.8	27.3
Substance Awareness	12.7	12.8	12.4	15.6	16.1	13.6	12.9	13.1	10.3
Alcohol Treatment	23.7	24.0	20.1	20.0	20.4	15.0	23.4	23.7	19.6
Alcohol program	20.4	20.6	16.8	16.6	16.9	12.8	20.1	20.3	16.4
Drug Treatment	24.1	23.7	29.9	24.2	24.3	22.7	25.0	23.8	29.2

Program	State Total	State Male	State Female	Federal Total	Federal Male	Federal Female	Total Inmate	Total Male	Total Female
Drug Program	20.1	19.8	23.9	19.7	19.8	18.4	20.1	19.8	23.4

N=18326

The percentages in Table 23 also indicate that the higher percentage participation is for federal inmates, both male and female, for vocational and educational programs. Inmates incarcerated in federal prison participate at about the same rate regardless of gender. State inmates participate more in personal improvement groups, alcohol or drug programs, and alcohol treatment than federal inmates, and the percentages are almost equal for drug treatment and drug programs. The results of the frequency distribution also indicate that females incarcerated in federal prison are more likely to participate in vocational and educational programs than any other subset of inmates.

In order to test the significance between male and female inmates and all prison programs, Pearson's chi-square was conducted on the variables. The results of chi-square analysis between male and female inmates and their participation in all types of programs while incarcerated on their current sentence are presented in table 24. The results indicate that the male inmates are more likely to participate in vocational and educational programs (odds ratio:1.26) as well as alcohol programs (odds ratio:1.29) and alcohol treatment (odds ratio: 1.26). However, female inmates are 46% more likely to participate in religious study programs than are male inmates. Moreover, female inmates are 33% more likely than male inmates to participate in drug treatment while incarcerated and 24% more likely to participate in drug programs. While the results for all but two tests are significant, the similarities in the percentages especially for vocational/educational programs indicate that the results may not be meaningful.

Table 24

Comparison of Program Participation for Male and Female Inmates

	Male Inmate n=17163	Female Inmate n=1163	*X2(SE)*
Religious	30.5	38.8	35.510(.000)
Vocat/Educational	52.0	46.9	14.873(.000)
Substance Abuse	26.8	27.4	1.165(.761)
Drug Treatment	23.8	29.3	2.442(.000)
Drug Program	19.8	23.4	10.041(.018)
Alcohol Treatment	23.7	19.6	10.430(.005)
Alcohol Program	20.3	16.5	10.974(.012)

N=18326; $p<.05$; df=1

For further in depth analysis of program participation in alcohol and drug programs and religious study programs by female and male inmates, two separate models of logistic regression were used to measure the odds of predicting participation. As shown in Table 25, a few of the independent variables do not matter in predicting an inmate's participation in alcohol or drug programs such as whether the inmates' child lived with them prior to incarceration, whether or not the inmates took medicine for mental disorders prior to incarceration, whether or not the inmate was married or not, and whether or not the inmates were white or nonwhite. Murder as a commitment offense also did not result in statistical significance but drug trafficking did. Inmates committed on drug trafficking are 12% more likely not to participate in alcohol or drug programs. Prior abuse is important in predicting the probability of program participation. In addition, an inmate incarcerated in federal prisons is more likely to participate in substance abuse programs than a state inmate. The results also indicate that as the age of the inmate increases so does the probability of substance abuse program participation. Females are more likely than males to participate in programs.

Table 25

Odds Ratio of Predicting Alcohol/Drug Program Participation for Female and Male Inmates

Variables	UC(SE)	Odds Ratio
Child With You (Coded 1)	.024(.560)	1.024
Abused Physically or Sexually Coded 1	-.241(.000)***	.786
Age	.012(.000)***	1.012
Female (Coded 1)	.126(.009)**	1.134
Married Coded 1 or Not Coded 0	.073(.037)*	1.076
Medicine for Mental Disorder (Coded 1)	-.082(.112)	.922
Communication from Children (Coded 1)	-.125(.001)**	.883
Religious Study Program (Coded 1)	-.443(000)***	.642
Used Drugs at Time of Offense (Coded 1)	-.596(.000)***	.551
Drug Trafficking Offense Coded 1	-.119(.015)*	.888
Murder as Commitment Offense Coded 1	.120(.060)	1.128
Sentence Length in Years	.000(.032)	1.011
White (Coded 1)	-.058(.102)	.943
Time Served in Prison	.000(.178)	1.000
Type of Prison State coded 1	-.176(.000)***	.839
Written up for Infractions Coded 1	-.373(.000)	.688
Constant	-.202(.105)	.817
Nagelkerke (pseudo) R^2 = .061		
Chi-Square (df) = 772.619(17)		

N=18326 *p<.05, **p<.005, ***p<..0001

Logistic regression analysis was conducted to predict participation in religious study programs. Only a few of the independent variables that resulted in poor predictors of religious study programs were also not good predictors for substance abuse programs such as whether or not an inmate is married or not and whether or not the inmate took medication for

mental disorders prior to incarceration. Whereas drug trafficking could predict the probability of substance abuse programs, it can not be used to predict religious study programs. Inmates incarcerated for murder offenses are 32% less likely to participate in religious programs. The results in table 26 indicate that white inmates are 66% more likely to participate in religious programs than non whites. However, inmates who lived with their children prior to incarceration were more likely than those who did not to participate in religious group programs. The results also indicate that females are less likely than male inmates to participate in religious study programs. The type of prison into which an inmate is incarcerated can not be used to predict any probability of participation in religious study programs. Sentence length can not be used to predict program participation.

Table 26

Odds Ratio for Predicting Participation in Religious Study Programs for Female and Male Inmates

Variables	B(SE)	Odds Ratio
Child with You (Coded 1)	-.127(.001)	.880
Abused Physically or Sexually Coded 1	-.359(.000)***	.699
Age	.006(.000)***	1.006
Female (Coded 1)	-.244(.000)***	.784
Married Coded 1 or Not Coded 0	-.034(.295)	.966
Medicine for Mental Disorder (Coded 1)	-.102(.039)*	.903
Communication from Children (Coded 1)	-.168(.000)***	.845
Alcohol Drug Program (Coded 1)	-.444(.000)***	.642
Used Drugs at Time of Offense (Coded 1)	.017(.641)	1.017
Drug Trafficking as Commitment Offense Coded 1	-.036(.431)	.965
Murder as Commitment Offense Coded 1	-.379(.000)***	.685
Sentence Length in years	.000(.156)	1.456
White (Coded 1)	.508(.000)***	1.661

Time Served in Prison	.000(.597)	1.000
Type of Prison Federal Coded 0 State Coded 1	.004(.930)	1.004
Written up for Infractions Coded 1	-.068(.049)	.934
Constant	1.092(.000)	2.981
Nagelkerke (pseudo) R^2 = .058		
Chi-Square (df) = 756.764(17)		

N=18326 *p<.05, **p<.005, ***p<..0001

Analysis of Inmates and Prison Behavior

Table 27 shows the frequency distribution of the different infractions including assault on inmate and officers, alcohol and drug infractions, and possession infractions. Male inmates show a 10% higher percentage than female inmates of being written up. Overall, the percentages for male inmates are higher than for female inmates for most all types of infractions and the number of infractions except for one value. Female inmates show a higher percentage of receiving 2-5 infractions for assaulting an officer or inmate than the male inmates and a higher percentage for 6-10 infractions. The percentage for male and female inmates for alcohol and drug infractions resulted in similar numbers. Furthermore, the percentages for individual infractions indicate that male inmates tend to commit more infractions than female inmates for all types of infractions. Overall, female inmates are less likely to receive infractions than male inmates.

Table 27

Percentages of Behavior Infractions for Male and Female Inmates

Type of Infraction	#	State Total n=14285	State Males n=11352	State Females n=2933	Federal Total n=4041	Federal Males n=3178	Federal Females n=863	Total Inmates n=18326	Total Male n=14530	Total Female n=3796
Been Written Up		52.8	53.4	43.5	32.7	33.4	17.8	51.2	51.9	41.2
Assault	1	14.1	14.3	10.9	7.3	7.2	8.7	13.6	13.8	9.2
	2-5	6.1	6.1	5.2	2.0	1.9	3.0	5.8	5.8	10.7
	6-10	0.7	0.7	0.4	0.2	0.2	0.2	0.6	0.6	5.0
	11 +	0.3	0.3	0.2	0.1	0.1	0.3	0.3	0.3	0.4
Drug/Alcohol	1	5.1	5.1	3.7	5.1	5.2	3.7		5.1	3.7
	2-5	2.0	2.3	0.6	2.1	2.5	2.4	2.0	2.1	1.6
	6-10	0.3	0.3	0.1	0.4	0.4	0.3	0.3	0.3	0.2
	11 +	---	---	---	---	---	---	---	---	---
Possession	1	10.1	10.4	9.0	5.9	5.6	6.8	10.2	9.3	8.5
	2-5	1.2	1.3	1.1	0.6	0.3	0.5	1.3	1.1	0.9
	6-10	0.1	0.1	0.1	---	---	---	0.1	0.1	0.1
	11 +	---	---	---	---	---	---	---	---	---
All Infractions	1	35.3	35.8	31.6	24.2	24.4	25.2	32.8	34.9	31.0
	2-5	11.8	11.8	11.5	4.7	6.0	6.5	10.4	11.2	11.0
	6-10	1.2	1.2	1.2	0.4	0.4	0.3	1.0	1.1	1.2

Table 27 continued

Type of Infraction	#	State Total n=14285	State Males n=11352	State Females n=2933	Federal Total n=4041	Federal Males n=3178	Federal Females n=863	Total Inmates n=18326	Total Male n=14530	Total Female n=3796
	11-25	0.7	0.7	0.4	0.1	0.1	.1	0.5	0.7	0.3

N=18326

--- % < 0.00

Table 28 shows the results of the test for independence between prison infractions and male and female inmates. The results of chi-square analysis indicate a significant relationship between prison infractions and inmate gender. Male inmates are 53% more likely than female inmates to have been written up for any infractions since their admission to prison for their current offense. Moreover, male inmates are more likely to have received formal charges for assaulting an officer or another inmate (odds ratio: 1.24) and 27% more likely to have been written up for drug and alcohol infractions since their admission to prison for their current commitment offense than are female inmates. The results of the odds ratio equation for possession of illegal contraband resulted in male inmates' only having a slightly higher odds at 9% of being written up. When analyzing these results the number in the sample for both male and female inmates needs to be considered. The total of all male inmates (n=14,530) ever written up for infractions is 24.3% and for female inmates (n=3,796) is 18%. In addition, only 23% of the total population of inmates have ever received formal charges.

Table 28
Comparison of Behavior Infractions for Female and Male Inmates

	Male Inmate n=6859	Female Inmate n=1713	*X2(SE)*
Written-up for Infractions	51.9	41.2	50.913(.000)
Assault Infractions	41.4	36.1	5.735(.017)
Drugs/Alcohol	15.1	12.3	3.328(.068)
Possession	23.1	21.5	.734(.392)

N=18326; p<.05; df=1

A logistic regression model was used to predict the dichotomous variable of prison behavior. Table 29 presents the results of entering the independent variables into the logistic regression model in SPSS to predict the odds of receiving behavior infractions (coded 1) versus no behavior infractions (coded 0). As the results indicate, the probability that a

female inmate will be written up is over twice that of male inmates. White inmates have a 37% higher likelihood of being written up than do non-whites. The results also indicate that age can be used to predict behavior infractions. When all the other variables are held constant, as the age of the inmate decreases the probability of being written up increases. Living with children prior to incarceration does not affect the probability of being written up and neither does participation in religious study programs in prison or the inmates status at time of commitment. The negative coefficient for substance abuse programs indicates that program participation decreases the probability of being written up for inmates. When all other variables are held constant. the probability of being written up for infractions decreases for inmates incarcerated on murder offenses and increases for inmates incarcerated on drug trafficking.

Table 29

Odds Ratio for Predicting Ever Been Written Up for Infractions for Female and Male Inmates

Variables	B(SE)	Odds Ratio
Abused Physically or Sexually (Coded 1)	-.415(.000)***	.661
Child with You (Coded 1)	.032(.396)	1.032
Age	-.032(.000)***	.969
Female (Coded 1)	.700(.000)***	2.013
Medicine for Mental Disorders (Coded 1)	-.593(.000)***	.553
Communication with Child (Coded 1)	.180(.000)***	1.197
Religious Study Program (Coded 1)	-.069(.045)	.933
Alcohol Drug Program Participation (Coded 1)	-.372(.000)***	.689
Used Drugs at Time of Offense (Coded 1)	-.184(.000)***	.832
Sentence Length in Years	.036(.000)***	1.120
Drug Trafficking Commitment Offense (coded 1)	.218(.000)***	1.244
Murder commitment Offense Coded 1	-.832(.000)***	.435
Commitment Status at Commitment Coded 0	.064(.053)	1.067

White (Coded 1)	.318(.000)***	1.374
Type of Prison State Coded 1	-.538(.000)***	.584
Time Served in Prison[23]	.000(.023)*	1.000
Constant	2.136(.000)	8.466
Nagelkerke (pseudo)R^2=.140		
Ci-Square (df) = 2382.399(23)		

N=18326 *p<.05, **p<.005, ***p<..0001

Table 30 shows the univariate analysis of the frequency distribution with percentages of the discipline measures for the male and female inmates. Inmates can be confined to their own cell, confined to segregation or solitary, transferred to another facilities, moved to a higher custody level within the facility, lose gain time, receive additional time, be given extra work, lose privileges, or receive a formal reprimand only. The percentages in Table 30 show that a higher percentage of inmates receive solitary confinement as a punishment than any other discipline measure. Furthermore, male inmates have a higher percentage than female inmates for harsher punishments. Federal male inmates are over twice as likely to receive solitary confinement as federal female inmates, and state inmates are more likely to receive solitary confinement than federal inmates. Male inmates incarcerated in state prison and federal prison are more likely to be moved to a higher custody level than female inmates in either state or federal prison. Male inmates are also more likely three times as likely to be transferred to another facility than are female inmates. Table 30 also shows the percentage of inmates found guilty for infractions. State inmates are more likely to be found guilty than federal inmates. Moreover, male inmates are more likely than female inmates to be found guilty and the difference between male federal and female federal inmates is almost doubled.

[23]Time served in prison is a computed variable in order to control for the time the inmates have served by dividing length served/time left in prison.

Table 30

Percentages from Frequency Distribution for the Punishment for Prison Infraction of Female and Male Inmates

Variable	State Total	State Male	State Female	Federal Total	Federal Male	Federal Female	Total Inmate	Total Male	Total Female
Solitary	24.8	25.4	21.9	13.9	15.6	7.4	23.9	24.6	20.7
Confined Own Cell	10.8	11.3	8.4	6.5	7.3	3.0	10.4	11.0	7.9
Higher Custody	4.0	4.4	2.3	3.7	4.6	0.1	4.0	4.4	2.1
Transfer	1.4	1.5	0.6	1.0	1.2	0.1	1.3	1.5	0.5
Loss of Gain	0.5	0.5	0.3	0.2	0.2	0.4	0.4	0.5	0.3
New Sentence	0.3	0.4	0.0	0.1	0.1	0.1	0.3	0.3	0.0
Extra Work	0.1	0.1	0.0	0.1	---	0.4	0.1	0.1	0.0
Loss of Work	0.0	0.0	---	---	---	---	0.0	0.0	---
Loss Privileges	0.0	0.0	---	---	---	---	0.0	0.0	---
Reprimand Only	---	---	---	0.1	0.1	---	0.0	0.0	---
Found guilty	25.1	25.1	25.0	19.0	19.7	10.3	24.6	25.7	19.7

N=18326

-- no results

Table 31 shows the results of chi-square between discipline for infractions and the type of infractions split by gender. The significant level was found for both male inmates and female inmates due to entering gender as a control variable. The relationship of assaulting an officer or inmate on solitary confinement, confinement to own cell, and movement to a higher custody level within the prison are significant for males. In addition,

there is also a significance for males between alcohol and drug infractions on solitary confinement and movement to a higher custody level but not for confinement to their own cell. The results for female inmates indicate no significance between females and infractions. Moreover, the results indicate that male inmates are more likely than female inmates to receive solitary confinement for assault of an officer, for alcohol or drug infractions and are also more likely than female inmates to be confined to their cell for assaulting an officer or inmate and for alcohol and drug infractions. Once again, the sample size for the chi-square test must be considered. The male inmates who responded to this question totaled only 48% of the total male sample. The numbers were even lower for female inmates at 11% of all female inmates in the sample. Because the sample size is reduced for inmates who received formally charges for infractions, the sample size will be smaller for inmates who were disciplined for infractions for which they were formally charged.

Table 31

Comparison of Prison Infractions with Discipline for Infractions for Male and Female Inmates

	Solitary Confinement				Own Cell			
	Male		Female		Male		Female	
Variable	%	X^2(SE)	%	X^2(SE)	%	X^2(SE)	%	X^2(SE)
Substance Abuse	49.0	59.55(.000)	53.3	.062(.804)	28.0	4.38(.036)	30.0	.06(.806)
Assault	54.4	48.79(.000)	53.6	.988(.320)	27.0	6.34(.012)	35.7	6.28(.012)
Poss.	53.8	24.82(.000)	56.4	.380(.538)	26.7	1.31(.252)	30.7	.29(.588)

Males n=7007; Females n=422
N=18326; df=1; p<.05

Logistic regression was further used to predict the probability of being found guilty for infractions or for being disciplined for infractions. The same independent variables were

entered for one model to predict the odds of an inmate being found guilty of infractions and for another model to predict the odds of receiving discipline for infractions. As shown in Table 32, many of the variables entered into the model do not matter in predicting the results of either model. The type of infraction that an inmate is charged with cannot predict whether or not the inmate is found guilty of the infraction or disciplined for the infractions. The strongest odds for predicting discipline are for females resulting in positive coefficient for each dependent variable. Females have a higher probability than males of being found guilty (26%) and over twice the probability of being disciplined. Whites have a higher probability of being disciplined and found guilty than non-whites. In addition the results indicate that inmates involved in substance abuse programs and inmates taking medicine for mental disorders have a higher probability of not being found guilty or disciplined for infractions. Age indicates that inmates are more likely to be found guilty and disciplined as age decreases. Also the sentence length for inmates indicates that as the sentence increases so does the probability that inmates will be disciplined for infractions.

Table 32

Odds Ratio for Predicting Being Found Guilty for Infractions and Being Disciplined for Infractions for Female and Male Inmates

	Found Guilty		Discipline For Infractions	
Variables	B(SE)	Odds Ratio	B(SE)	Odds Ratio
Abused Physical or Sexual Coded 1	-.150(.025)	.861	-.392(.000)***	.676
Age	-.017(.000)***	.984	-.038(.000)***	.963
Females (Coded 1)	.232(.001)**	1.261	.700(.000)***	2.013
Medicine for Mental Disorders	-.258(.001)**	.772	-.679(.000)***	.507
Religious Study Program (Coded 1)	.013(.812)	1.013	-.069(.174)	.933
Alc/Drug Program (Coded 1)	-.301(.000)***	.740	-.389(.000)***	.678
Alcohol/Drugs Infractions (Coded 1)	.015(.844)	1.015	-.007(.913)	.993
Assault Infractions (Coded 1)	-.033(.538)	.968	-.074(.125)	.928
Possession Infractions (Coded 1)	-.056(.365)	.946	-.049(.387)	.952
Sentence Length in Years	.000(.025)*	1.000	.000(.001)**	1.120
Drug Trafficking Offense (Coded 1)	-.161(.030)	.851	.150(.033)*	1.162
Murder Offense (Coded 1)	-.216(.012)*	.806	-.776(.000)***	.460
White (Coded 1)	.140(.008)*	1.150	.197(.000)***	1.218
Type of Prison State Coded 1	-.368(.000)***	.692	-.449(.000)***	.638
Time Served in Prison	.000(.177)	1.000	.000(.092)	1.000
Constant	.273(.193)	1.314	2.09(.000)***	8.075
Nagelkerke (pseudo) R^2=	.026		.123	
Chi-Square (df) p<.05	149.928(18)		797.038(18)	

N=18326 *p<.05, **p<..005, ***p<.0001

Logistic regression was used to predict the odds of discipline by solitary confinement, confined to own cell, or moved to a higher custody level. The way each value is coded is listed in parenthesis next to the variables where space is minimal. The probability

that an inmate will not be punished at all was also entered as a dependent variable. As shown in Table 33, the probability that an inmate will receive solitary confinement increases with the formal charges of assault infractions by 42%, for possession infractions (20%), and alcohol or drug infractions (67%). Furthermore, assault infractions decrease the probability of being confined to own cell (19%) and decrease the probability of being transferred to a higher custody level within the prison (25%). Also alcohol and drug infractions decrease the probability of being transferred as well (47%). Moreover, inmates charged with assault infractions are over twice as likely to receive no punishment at all. As the results also indicate, females are 52% more likely to be moved to a higher custody level than are males, and as the inmate's age increases so does the probability of being punished for infractions (4%), but just by a slight degree. The type of prison that the inmate is incarcerated tends not to make a difference in the type of discipline that the inmate receives. Furthermore, as indicated by the results, sentence length, type of commitment offense, program participation, race, and medication for mental disorders did not predict types of discipline.

Table 33

Odds Ratio for Predicting Discipline Measures for Female and Male Inmate

	Solitary Confinement		Confined to Own Cell		Transferred Level		No Punishment	
Variable	UC(SE)	OR	UC(SE)	OR	UC(SE)	OR	UC(SE)	OR
Has Child Coded 1	-.051(.509)	.950	.015(.857)	1.015	.028(.829)	1.029	.469(.347)	1.598
Child with You Coded 1	.121(.053)	1.129	-.145(.036)	.865	-.011(.916)	.989	.096(.822)	1.101
Age	-.001(.595)	.999	.002(.339)	1.002	-.001(.752)	.999	.045(.006)**	1.046
Female Coded 1	-.125(.065)	.883	-.156(.033)*	.856	.424(.001)	1.529	.021(.967)	1.021
Medicine Coded 1	.014(.858)	1.014	-.081(.333)	.922	.005(.971)	1.005	.020(.963)	1.020
Religious Study Progr (1)	.000(.997)	1.000	.027(.684)	1.027	.000(.998)	1.000	-.037(.921)	.964
Alc/Drug Program Coded 1	.043(.739)	1.044	-.128(.365)	.880	.178(.427)	1.195	1.21(.281)	3.351
Alcohol/Drugs Infractions (1)	.513(.000)***	1.671	-.156(.033)	.855	-.632(.000)***	.532	.173(.720)	1.189
Assault Infractions Coded 1	.356(.000)***	1.427	-.203(.000)***	.817	-.280(.001)**	.756	.725(.043)*	2.065
Possession Infractions (1)	.189(.001)**	1.208	-.029(.652)	.971	-.175(.062)	.839	-.146(.694)	.864
Sentence Length in Years	.040(.468)	1.041	-.015(.812)	.985	-.075(.414)	.928	.2769(.445)	1.318
White Coded 1	.013(.795)	1.014	-.049(.394)	.952	.091(.297)	1.095	.322(.331)	1.381
Prison State Coded 1	.051(.043)	.761	.023(.076)	.376	.218(.067)	1.011	.098(.183)	1.467
Time Served	.000(.468)	1.000	.000(.415)	1.000	.000(.993)	1.000	.045(.725)	.999
Constant	-.412(.059)	.662	-.688(.004)	.503	-1.715(.000)	.180	-6.638(.000)	.001
Nagelkerke (pseudo) R^2=	.031		.010		.027		.171	
Chi-Square (df)	155.625(25)		46.291(25)		87.215(25)		83.324(25)	

N=18326 *p<.05, **p<.005, ***p<..0001

Summary

There were 25 hypotheses proposed from 11 research questions included in this study. Chapter 4 presented the data analysis and the results of each hypotheses as concluded from the results of univariate, bivariate and multivariate testing in a total of 33 Tables. This study used the statistical measures of descriptive, chi-square, odds ratio equation, linear regression and logistic regression analyses.

CHAPTER 5

DISCUSSION AND CONCLUSION

Introduction

Even though numerous studies have examined male offenders and female offenders independently, there has not as of yet been a study that has compared male and female inmates on current commitment offense, criminal history, prior abuse, substance abuse, family criminal history, communication with family and friends, program participation, and prison infractions. This study analyzed the responses of inmates incarcerated in state and federal prisons in order to evaluate differences between male and female inmates on several characteristics. The Bureau of Census collected confidential responses from male and female inmates and the Department of Justice compiled the data into the survey that this study based its analyses upon.

Gender and Offending

The first part of this research addressed the differences in criminal offending between male and female inmates and state and federal inmates. Prior research suggested that females are just as violent as men and that the number of female offenders and offenses are rising (Burton et al., 1998; Chilton & Datesman, 1987; Steffensmerier et al., 1989). This study finds that male inmates are more likely than female inmates to report violent offenses. Females were found to commit more property crimes, but have less extensive prior records of property offenses than males. Females in prison are less likely to be chronic offenders than are males in prison.

Consistent with prior research, this study finds that drug related crimes for females are increasing. Females commit more drug offenses, especially drug trafficking, than do males and have longer criminal histories of drug offenses than do males. Females are less likely

to have a criminal history with the exception of drug offenses, indicating that females are more specialized in their criminal activity. In addition, more of the violent offenders, both male and female, end up in state prisons than in federal prisons. State inmates have more extensive criminal histories than federal inmates. Consequently, state inmates receive longer sentences than federal inmates. Linear regression results showed that longer sentences to incarceration by state inmates are a direct result of the extensive criminal records of state inmates such as more numerous prior probation sentences of state inmates. Whereas federal prisons tend to have higher numbers of drug offenders, state prisons have higher numbers of inmates convicted of violent crimes. The higher percentages of female inmates convicted of manslaughter compared to male inmates suggests that females may have gotten a better deal in homicide cases by either pleading down or from officials convicting female offenders on lesser charges. The results of the linear regression analysis found that females received shorter sentences than males. Moreover, males are more than twice as likely to be convicted of a violent offense with the exception of manslaughter than are female offenders. In addition, the probability of receiving a longer sentence is greater for offenders convicted of murder than any other offense and even more so for inmates in state prisons.

Prior studies have found that females are less likely to receive prison sentences due to their role as mother and main caregiver (Chesney-Lind, 1998; Craddock, 1996; Daly, 1987, 1989; Daly & Chesney-Lind, 1988; Kruttschnett & Green, 1984; Ogle et al., 1995; Murphy & Brown, 2000; Nagel & Johnson, 1994; Steffensmeier & Allan, 1996). This study found that women in prison receive shorter sentences than males. More females than males were found to have children and were found to live with them prior to incarceration. Females appear to be incarcerated with shorter criminal records than males. Females are also substantially more likely to be first offenders than are males for all offenses with the one exception of drug trafficking offenses.

Familial Affect on Male and Female Inmates

The next part of this research addressed the difference in familial impact between male and female inmates and federal and state inmates. Males tend to be more violent and commit more offenses than females but the reasons do not originate from family criminal history. Female inmates report more prior family incarceration history than males especially for their brothers and sisters. Family incarceration history is thus more prevalent for females and was predictive of sentencing outcomes for inmates based from the linear regression analysis. In contrast, females inmates report more communication with children during their current incarceration. Although bivariate findings indicate that female inmates receive more letters, telephone calls, and personal visits from their children than do male inmates, the results of the logistic regression analysis indicates that females received 50% less communication than males.

Prior Victimization and Criminal Offending

Prior research suggests that females criminally offend as a result of physical and sexual abuse and are victimized more often than males (Browne et al., 1999; Gottfredson, 1986). Females in this study were found to be abused more frequently than males, and that prior victimization is more prevalent in the lives of females prior to their incarceration than it is in the lives of males. Although females are victims of abuse both physically and sexually at higher rates than males, this study found that females and males do not criminally offend at the same rate. From the multivariate analysis, it appears that prior victimization did affect the sentence length for inmates and could also be used to predict the probability of receiving communication from children. There is a higher probability that inmates who were abused prior to incarceration communicate more with children while incarcerated. The results of this study further support Verona and Carbonell's (2000) theory of the overcontrolled female. While females are victims of abuse more frequently than males, victimization does not appear to increase criminality in females.

Inmates and Substance Abuse

This research also focused on substance abuse history of the female and male inmates and what effect, if any, alcohol and drugs had on offenses. As reported in prior research, females abuse drugs and alcohol at the time of their offense as much as males but males tend to drink more alcoholic beverages than females (Hien & Hien, 1998; Martin & Bryant, 2001). Both males and females began abusing drugs and alcohol about the same time in their life. Generally, inmates began drinking alcohol at an earlier age than they began using drugs. Prior research reported that alcohol is a major factor in male and female offending (Goodwin, 1991) but this study found that males abuse alcohol at the time of their offense more so than females. In addition, females abuse drugs and a combination of drugs and alcohol more often than males, and females are convicted of drug trafficking at higher rates than males. Not only do state inmates have more priors and receive longer sentences, but state inmates also admit to more abuse of all types of drugs at the time of their offense.

Mental Disorders and Inmates

Teplin et al. (1996) stated in their research the importance of studying mental disorders and mental illness like antisocial personality disorder and anxiety disorders in criminal offenders. This survey only included a minimal number of questions that focused on mental disorders but the results of this study support prior research. Female offenders experience mental illness prior to their incarceration and during their incarceration at higher rates than do male offenders. In addition, female inmates seek counseling and therapy prior to incarceration and during incarceration, more so than male inmates. With this in mind, taking medication for mental disorders does not influence the sentencing of either males or females. Teplin (1990) found that more males than females are examined for mental disorders but it appears that female inmates receive medication for mental illness from a physician prior to and during incarceration

at higher rates than do males. The presence of mental disorders in females is significant and needs to be researched in more depth to determine its effect on the rate of criminally offending.

Current Conditions of Confinement

There are conflicting reports in the prior research of the success of rehabilitation and prison programs. Prior research reported that both federal and state prisons offer mandatory and voluntary programs for the inmates. One of the focuses of this study examined the participation of inmates in prison programs and the differences in participation between male and female inmates. Also addressed were the factors that increase or decrease participation in programs.

Females tend to participate more frequently in prison programs than do males. Females appear to abuse drugs more frequently at the time of their offense than males and to participate in drug treatment more often as well. Males are more likely to abuse alcohol than females at the time of offense and appear to participate more often in alcohol treatment. These findings indicate that prior abuse of alcohol and drugs does affect program participation by both male and female inmates. Females also participate in religious study programs more frequently than male inmates and program participation in substance abuse programs and religious study programs are not good predictors of participation in other programs. In addition, inmates, both male and female, appear to participate more frequently in programs as their sentence length decreases.

Prior research suggests that programs within prisons do not work and that rehabilitation is worthless. This study analyzed how program participation affects prison infractions by the inmates and found that the more an inmate participates in the programs offered in prison, the better his/her behavior. Females who participate in alcohol and drug programs as well as religious programs are less likely to be written up than are males who

participate in the same programs. Females have less numerous infractions than males and participate more often in prison programs. Program participation appears to reduce the risk of infractions for both male and female inmates but more so for females.

Prior research indicates that a small percentage of inmates commit prison infractions. This study found the same to be true with less than 24% of all inmates committing some type of infraction during their incarceration. Moreover, a small percentage of inmates commit the large percentage of the infractions. An even smaller percentage of inmates are actually found guilty of infractions after they are formally charged. Female inmates appear to have more assault infractions than male inmates but still receive even less discipline measures than male inmates. However, males appear to be more violent in prison and prior to incarceration and receive harsher punishments within prison as well as longer sentences. In contrast to prior research, violence on the outside does not necessarily preclude violence from the inmates on the inside. Inmates sentenced to violent crimes such as murder have fewer infractions of discipline while incarcerated.

Family communication does appear to influence the risk of infractions for both male and female inmates. Communication with children appears to have the most positive effect towards reducing prison infractions and improving prison behavior for both male and female inmates. Although communication does not appear to increase participation in programs, inmates who participated in programs within the prison community have lower probabilities of being formally charged with infractions. Furthermore, any communication from children can reduce the risk of prisoners assaulting officers, assaulting other inmates, possessing any illegal substances, and from committing alcohol and drug infractions.

Limitations of the Survey

In order to accurately assess the results of this study, considerations must be

included of the limitations within such a survey. The U. S. Bureau of Census needs to address the needs of updating its software package in order to reduce the errors created by the generalized variance estimates that were used to compute the standard error (Vplex). The survey did include a duplication control factor for the current survey but not for previous surveys. Inmates may be interviewed and included in more than one survey because the surveys are conducted every 5 years. Due to the inmate's length of sentence or repeat offenses, the inmates could be included in the random sample more than once. Moreover, this survey is a self-reported questionnaire and does not include official documents such as official rap sheets or court reported convictions. There were no records used or official criminal reports. This is strictly an analysis of the inmates responses to specific questions as prompted by the computer program. All of the responses are contingent upon the integrity or the memories of the respondents themselves. Past research has found that offenders with the most extensive records provide fewer valid and reliable self-reports than do other inmates (Simon, 1996).

Prior research suggests that a large percentage of female inmates have mental disorders that are never detected (McClellan et al., 1997). This survey only included 8 questions as to the inmates on mental health prior to and during incarceration. The section on substance abuse and alcohol abuse was much more extensive than mental health disorders.

Although program participation is an essential element of prison life, the overall advantages can not be completely covered by this study. Program participation varies with each prison depending on the programs available from the prison and for each state. Because this is a random sample of prisons, the exact prisons surveyed are not known. All of the states included in the survey are not known either. Future surveys might include questions about the availability of prison programs.

This study also only included the offenses for which the offenders were incarcerated or sentenced to prior to their current offense. It does not include any prior offenses

that offenders were never charged with, and does not include any charges that may have been dropped or plea bargained. Once again this survey relies on the validity and reliability of the inmates' answers and responses to the questions. Inmates were assured of confidentiality which does not increase the data quality of the most chronic offenders (Simon, 1996). Future survey questions may want to address crimes that inmates have committed but have never been charged with.

Suggestions for Further Research

More research is needed on this survey using more mental health variables. This 1997 survey was limited in the number of questions asked of inmates about their history of mental disorders and any present treatment of mental disorders. There were fewer than 10 questions on mental illness in this survey compared to 222 drug questions. However, the Survey of Inmates completed in 2000 promises to address mental disorders in more depth. In addition, more research is needed on the benefits of program participation. Also, more research needs to address the affects of sentencing on mothers who care for children. What happens to the children needs to be addressed. Because of the number of variables included in this survey, this study is just the beginning of comparisons that can be made between the male and female inmates. There are so many avenues that can and need to be explored. Future research could also examine more closely the difference between state and federal inmates. Findings of this study suggest that federal offenders are less criminal and have more family ties and support than state inmates. Future surveys could include more questions about family factors found to have an influence on criminality of inmates. Questions could be devised that measure child-rearing practices used in homes of inmates, for example (Gottfredson & Hirschi, 1990).

Summary

The number of female offenders are not decreasing even though females communicate and interact more with family than males. Prior research suggests that a female's increase in participation in all social and economic realms increases her opportunity to participate in criminal activity. Gottfredson and Hirschi (1990) suggest that males and females may differ in self-control. Males outnumber females in the percentage of violent offenses and number of prior convictions but the gap is decreasing. Early childhood family factors may increase self-control, affecting criminal offending. The correctional community needs to recognize the benefits of the family on the inmates as well as prison program participation on inmate behavior. Prison behavior can improve with more family communication and program participation.

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APPENDICES

Appendix A

Summary of Variables and Coding Used

Gender Variable: Males were originally coded by the survey as 1 and females as 2. For multivariate analysis, gender was coded: males 0 and females 1.

Current Commitment Offense Variables: The survey includes a collapsed variable that includes 21 different offenses. The survey collapsed the offenses further into violent offenses coded 1, property offenses coded 2, drug offenses coded 3, and public order offenses coded 4. For multivariate analyses, the collapsed variable was coded into three separate variables for violent offenses coded 1 and not violent coded 0. Drug offenses were coded into drug 1 and not drug 0. Property offenses were coded into property 1 and not property 0. Missing was set to system missing.

Status at time of Commitment Offense Variable: The survey collapses the variablesof r inmates' status at time of current commitment offense from on parole coded 1, on probation coded 2, on escape coded, 3 and new court commitment coded 4. Missing was 9. This variable was further coded for multivariate analyses into new court commitment as 1 and all others as 0. Missing values were set to system missing.

Prior Offense Variables: The type of offenses of prior offenses were coded as current commitment offenses. The survey used categorical values for number of priors. The survey coded 0 priors as 0, 1 prior offenses as 1, 2-5 priors as 2, 6-10 priors as 3, 11 or more priors as 4, and missing values as 9. For the purpose of multivariate analyses, this variable was coded as 1 or more priors as 1 and no priors as 0. Missing values were set to system missing.

Sentence Length Variables:The survey included different variables for sentence length of inmates in days, months, and years. A few cases coded as suspended sentences had values of 0.1 and were recoded to 0. A few cases labeled as life and/or death sentences and coded as 100,000

in the survey. Because the next highest value was 2400, life and/or death sentence values were re-coded into 2500 months, as were the two outliers of 4,382 and 9,380. Suspended sentence was coded as 0. The sentence length variable was further coded into sentence length in years by computing a new variable in SPSS by dividing all the values by 12.

Victimization Variables: The survey included variables for physical, sexual, and both physical and sexual abuse as separate variables. The survey collapsed the variables into one variable with physical coded as 1, sexual coded as 2, and both coded as 3. For multivariate analyses, the collapsed variable was coded into 3 different variables. Physical was coded as 1 and no abuse as 0. Sexual abuse was coded as 1 and no abuse as 0. Both physical and sexual abuse were coded as 1 and no abuse as 0. An additional variable was combined and coded for any abuse as 1 and no abuse as 0. Missing was set as system missing.

Communication Variables: The survey included separate variables for calls, mail, and visits from children. The survey coded the values of daily or almost daily communication as 1, at least once a week as 2, at least once a month as 3, less than once a month as 4, never as 5, other as 6, and missing as 99. For analyses of bivariate and multivariate, each variable was coded into any communication as 1 and none or never as 0. Missing was set to system missing. For use in the regression models, all three communication variables were combined into one communication variable with values set at any communication at 1 and no communication at 0. Again, missing were set at system missing.

Family Incarceration History Variables: The survey included separate variables for the incarceration history of parents, brother, sister, mother, father, child, spouse, and any family. All the variables were coded as has history at a value of 1, no history at a value of 2, and missing at 99. For multivariate analyses, each variable was coded into has history at a value of 1 and not history at a value of 0. Missing was set at system missing.

Substance Abuse Variables: The survey included separate variables for substance use at the time of the current offense and for alcohol use at the time of offense. The variables were coded

for under the influence at time of offense as a value of 1 and with a value of 2 for not under the influence at time of offense. For use in multivariate analyses the variables were coded 0 for not under the influence and 1 for being under the influence of drugs or alcohol. The survey also included two continuous variables that asked the respondent at what age they began drinking or using drugs. For bivariate analyses, the age variables were coded into less than 15 years with a value of 1, 16 through 30 years with a value of 2, 31 years and over with a value of 3, and missing coded as 9.

Mental Disorders Variables: The survey included 8 questions covering mental disorders and coded yes to taking medication as 1 and no to taking medication as 2. The survey also coded the variables for spending the night in a mental health facility, other mental health services, and receiving counseling and therapy the same way: yes coded 1 and no coded 2. Missing values were coded 9. For multivariate analyses in this study, the variables were coded as 0 for not taking medication or receiving any treatment and 1 for taking medication or receiving treatment. Missing values were set to system missing.

Program Participation Variables: The survey asked the respondents questions about their program participation during their current incarceration such as religious programs, educational programs, drug programs, alcohol programs, peer counseling programs, vocational programs, and other substance abuse programs. The survey collapsed the many variables into ones that combined alcohol and drug treatment and program participation into one. The values from the survey were coded 1 for responding yes to participating and coded 2 for not participating. Missing was coded 9. For multivariate analyses, the variables were coded 1 for participating and 0 for not participating. The collapsed variables that combined alcohol and drug programs were used for multivariate analyses as well as the variables for religious program participation. Missing values were coded as system missing.

Prison Behavior Variables: The survey included variables as to whether or not the inmate had ever been written up that were coded 1 for yes and 2 for no. Missing values were coded as 9. The survey also included variables to whether or not the inmate received discipline for

infractions coded as 1 for yes and 2 for no, missing was coded 9. Also included were variables for each type of infraction such as assault of an officer, assault of an inmate, alcohol and drug infractions, possession of illegal substances, possession of a weapon, possession of stolen property, and other infractions. The values were coded as 1 for yes and 2 for no, missing was coded as 9. The survey also included variables for number of infractions. In the survey, the values were coded as categorical variables for 0 infractions as a value of 1, 1 infraction as a value of 2, 2-5 infractions as a value of 3, 6-10 infractions as a value of 4, 11 or more infractions as a value of 5, and missing as a value of 9. The categorical variables were left as originally coded for the analyses. For multivariate analyses of the types of infractions, the variables were combined into 3 variables, assault, possession, and substance abuse. The 3 new variables were coded as 1 for being written up and 0 for not being written up for that type of infraction. Missing values were set to system missing. The survey included separate variables for the discipline for each infraction such as solitary confinement, confined to own cell, moved to higher custody, and no punishment. The discipline variables were coded 1 for yes and 2 for no, missing was coded 9. For multivariate analyses, the variables were coded with a value of 1 for receiving discipline for the type of infraction and with a value of 0 for not being disciplined. Missing values were set to system missing.

Appendix B

Summary of Hypotheses and Statistics Used

Hypotheses	Statistic Used
#1 Female inmates are more likely to have violent commitment offenses than are males.	Descriptive Frequencies, Chi-Square and Odds Ratio
#2 Female inmates are more likely to have property commitment offenses than are male inmates.	Descriptive Frequencies, Chi-Square and Odds Ratio
#3 Male inmates are more likely to have drug related commitment offenses than are female inmates.	Descriptive Frequencies, Chi-Square and Odds Ratio
#4 Federal inmates, both male and female, are more likely to have drug commitment offenses than are state inmates.	Descriptive Frequencies, Chi-Square and Odds Ratio
#5 Female inmates are more likely to possess more numerous prior convictions than are male inmates.	Descriptive Frequencies, Chi-Square and Odds Ratio
#6 Female inmates are more likely to possess prior convictions for violent offenses than are male inmates.	Descriptive Frequencies, Chi-Square and Odds Ratio
#7 Female inmates are more likely to possess more numerous prior probation sentences and more numerous prior prison sentences than are male inmates.	Descriptive Frequencies, Chi-Square and Odds Ratio
#8 Federal inmates, both male and female, are more likely than state inmates to possess more numerous probation and prison sentences.	Descriptive Frequencies, Chi-Square and Odds Ratio
#9 Male inmates have longer current prison sentences than female inmates.	Chi-Square, Correlation Coefficient and Linear Regression
#10 Federal inmates have longer current prison sentences than state inmates.	Chi-Square, Correlation Coefficient and Linear Regression
#11 Males are more likely to report that parents have an incarceration history than are females.	Descriptive Frequencies, Chi-Square and Odds Ratio
#12 Male inmates are more likely than female inmates to report that other family members possess an incarceration history.	Descriptive Frequencies, Chi-Square and Odds Ratio

#13 Females are more likely than males to report communication with family and children as measured by phone calls, letters and visits.	Descriptive Frequencies, Chi-Square and Odds Ratio
#14 The communication that an inmate receives with family positively affects the inmate s behavior during their incarceration.	Logistic Regression
#15 Female inmates are more likely to report a history of sexual and physical abuse than are male inmates.	Descriptive Frequencies, Chi-Square and Odds Ratio
#16 Female inmates are more likely to report substance abuse at the time of their commitment offense than are male inmates.	Descriptive Frequencies, Chi-Square and Odds Ratio
#17 Female inmates are more likely to report using drugs and/or alcohol for the first time at an earlier age than are male inmates.	Descriptive Frequencies, Chi-Square and Odds Ratio
# 18 Female inmates are more likely to report using alcohol at the time of their commitment offense than are male inmates.	Descriptive Frequencies, Chi-Square and Odds Ratio
#19 Federal inmates are no more likely to report using alcohol than are state inmates.	Descriptive Frequencies, Chi-Square and Odds Ratio
# 20 Female inmates are more likely than male inmates to report receiving prison treatment and medication for mental disorders during their current commitment.	Descriptive Frequencies, Chi-Square and Odds Ratio
#21 Female inmates are more likely to have received medication prescribed by a physician for mental disorders prior to their current incarceration than are male inmates.	Descriptive Frequencies, Chi-Square and Odds Ratio
#22 Females are more likely than males to report participation in all types of programs while incarcerated on their current sentence.	Descriptive Frequencies, Chi-Square and Odds Ratio
#23 There is a strong statistical relationship between program participation and prison infractions.	Logistic Regression
#24 Female inmates are less likely to report prison infractions than are male inmates.	Descriptive Frequencies, Chi-Square, Odds Ratio and Logistic Regression

#25 Females are more likely to report receiving harsher punishments for prison infractions than are male inmates for similar prison infractions.	Descriptive Frequencies, Chi-Square, Odds Ratio, Logistic Regression

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